

VL3500™ Wash Luminaire



USER'S MANUAL

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VL500™ (and the individual product designations), **VL1000™**, **VL2000™**, **VL2201™**, **VL2202™**, **VL2400™** (and the individual product designations), **VL2500™**, **VL3000™**, **VL3500™**, **Series 500™**, **Series 1000™**, **Series 2000™**, **Series 3000™**, **DICHRO*TUNE™**, **VARI*IMAGE™**, **VARI*BRITE™** and the Vari-Lite Asterisk are also trademarks owned by Genlyte Thomas Group LLC.

VARI*Lite® products are protected by one or more of the following patents, and other pending patent applications worldwide:

U. S. Patents No. 6,123,436; 6,113,252; 6,046,861; 6,031,749; 6,011,640; 5,969,868; 5,959,768; 5,934,794; 5,882,107; 5,829,868; 5,825,548; 5,798,619; 5,774,273; 5,769,527; 5,758,956; 5,728,994; 5,640,061; 5,590,954; 5,454,477; 5,432,691; 5,367,444; 5,329,431; 5,307,295; 5,282,121; 5,278,742; 5,209,560; 5,186,536; 5,073,847; 5,010,459; 4,980,806; 4,972,306; 4,800,474; 4,779,176; 4,701,833; 4,602,321;

U. S. Design Patents No. 439,356; 420,332; 417,300; 415,301; 413,995; 377,338; 366,712; 359,574; 350,408; 347,113;

Australia Patents No. 693,691; 683,695; 667,109; 649,264; 646,588; 586,095; 576,400; 546,433;

Australia Design Patents No. 128,796; 128,795;

Canada Patents No. 2,070,670; 2,050,375; 1,270,675; 1,259,058; 1,181,795;

Canada Design Patents No. 81,234; 81,233; 76,046;

European (UK) Patents No. 0 652 400; 0 586 049; 0 565 218; 0 547 732; 0 534 710; 0 495 305; 0 474 202; 0 379 970; 0 253 082; 0 253 081; 0 248 974; 0 192 882; 0 140 994; 0 060 068;

Germany Patents No. 694 25 943.8; 693 14 122.0; 692 08 615.3; 692 07 692.1; 691 31 478.0; 691 21 029.2; 690 33 385.4; 37 89 166.9; 37 68 727.1; 37 51 804.6; 37 50 201.8; 35 87 270.5; 32 79 888.1; 32 74 291.6;

Germany Design Patents No. M 98 01 745.4; M 96 04 515.9; M 96 04 514.0; M 94 07 689.8; M 94 02 951.2; M 499 03 583.6; M 498 11 203.9; G 93 12 884.3;

Spain Patents No. 2 090 191; 2 084 289; 2 020 960; 0 548 328;

Spain Utility Model Patent No. 2.031.748;

Spain Design Patents No. 0.137.502; 0.137.501; 0.133.573;

Greece Patent No. 910.400.544;

Hong Kong Patents No. 965/1990; 285/1987;

Japan Patents No. 2,843,696; 2,059,669; 2,055,324; 2,002,168; 1,966,525; 1,889,481; 1,792,721; 1,770,241; 1,723,825; 1,683,007; 1,533,011;

Japan Design Patents No. 985,985-1; 985,985; 947,552; 945,436-1; 945,436; 1,106,089; 1,077,598; 1,072,598; 1,060,414; 1,002,123;

Korea Patents No. 76,310; 42,639; 283,770; 181,180;

Korea Design Patents No. 209,896; 209,895;

Mexico Patent No. 180,148;

Singapore Patents No. 663/90; 134/87;

Taiwan Patents No. 78,726; 66,975; 65,380; 28,275;

United Kingdom Design Registrations No. 2082526; 2072562; 2056387; 2056386; 2042174; 2038212; 2033108; 2029499.

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VL3500™ Wash Luminaire User's Manual

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Version as of: **28-June-2007**

Part number: **02.9686.0001 0**

How To Obtain Warranty Service

A copy of the Vari-Lite Limited Warranty was included in the shipping package for this VARI***LITE**® product.

To obtain warranty service, please contact customer service at 1-877-VARI-LITE (1-877-827-4548), +1-214-647-7880, or customerservice@genlytecontrols.com and request a Return Material Authorization (RMA) for warranty service. You will need to provide the model and serial number of the item being returned, a description of the problem or failure and the name of the registered user or organization. If available, you should have your sales invoice to establish the date of sale as the beginning of the warranty period.

Once you obtain the RMA, pack the unit in a secure shipping container or in its original packing box. Go to the Vari-Lite web site www.vari-lite.com, click on the Support link, and download the RMA form. Put the completed RMA form in shipping container along with a copy of your invoice (if available). Write the RMA number legibly on or near the shipping address label and return the unit, freight prepaid to:

Vari-Lite
Attention: Warranty Service (RMA# _____)
10911 Petal Street
Dallas, Texas 75238 USA

As stated in the warranty, it is required that the shipment be insured and FOB our service center.

Compliance Notice

FCC This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when this equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with Vari-Lite system, service, and safety guidelines, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his/her own expense.



Declaration of Conformity

We declare, under our sole responsibility, that this product complies with the relevant clauses of the following standards and harmonized documents:

Safety

EN 60598-1:2000 Luminaire Safety Standard, General Requirements

EN 60598-2-17:1989 Specification for Luminaires for Stage and Studio Lighting

EMC

EN 61000-6-4:2001 Emission Standard for industrial environments

EN 61000-6-2:2001 Immunity for industrial environments

We certify that the product conforms to the protection requirements of council directives: 73/23/EEC (LVD) and 89/336/EEC (EMC)

Safety Notice

It is extremely important to read ALL safety information and instructions provided in this manual and any accompanying documentation before installing and operating the products described herein. Heed all cautions and warnings during installation and use of this product.

Safety symbols used throughout this manual are as follows:



CAUTION advising of potential damage to product.



WARNING advising of potential injury or death to persons.

GENERAL INFORMATION PERTAINING TO PROTECTION AGAINST ELECTRICAL SHOCK, FIRE, EXPOSURE TO EXCESSIVE UV RADIATION, AND INJURY TO PERSONS CAN BE FOUND BELOW.

WARNING:

INSTRUCTIONS FOR CONTINUED PROTECTION AGAINST FIRE

1. VARI*LITE® luminaires have been designed for use with specific lamp types. The VL3500™ Wash Luminaire requires a 1500 Watt metal halide lamp; see page 11. Installing another type of lamp may be hazardous.
2. Luminaires may be mounted on any type of surface as long as mounting instructions are followed. See instructions detailed in this manual.
3. Note distance requirement from combustible materials or illuminated objects for VARI*LITE® luminaires.

WARNING:

INSTRUCTIONS FOR CONTINUED PROTECTION AGAINST ELECTRICAL SHOCK

1. VARI*LITE® luminaires are designed for dry locations only. Exposure to rain or moisture may damage luminaire.
2. Disconnect power before servicing any VARI*LITE® equipment.
3. Servicing to be performed by qualified personnel only.

WARNING:

INSTRUCTIONS FOR CONTINUED PROTECTION AGAINST EXCESSIVE EXPOSURE TO UV RADIATION

1. Many VARI*LITE® luminaires use a lamp that produces UV radiation. DO NOT look directly at lamp.
2. It is hazardous to operate luminaires without lens or shield. Shields, lenses, or ultraviolet screens shall be changed if they have become visibly damaged to such an extent that their effectiveness is impaired. For example, by cracks or deep scratches.

WARNING:

INSTRUCTIONS FOR PROTECTION AGAINST INJURY TO PERSONS

1. Exterior surfaces of the luminaire will be hot during operation. Use appropriate safety equipment (gloves, eye protection, etc.) when handling and adjusting hot equipment and components.
2. Luminaires will have a hot lamp when operating. Disconnect power and allow lamp to cool before replacing.
3. Arc lamps emit ultraviolet radiation which can cause serious skin burn and eye inflammation. Additionally, arc lamps operate under high pressure at very high temperatures. Should the lamp break, there can exist a danger of personal injury and/or fire from broken lamp particles being discharged.
4. Wear eye protection when relamping.
5. Appropriate safety equipment (gloves, eye protection) should be used when handling damaged lamps.
6. If lamp is touched with bare hands, clean lamp with denatured alcohol and wipe with lint-free cloth before installing or powering up the luminaire.
7. The lamp shall be changed if it has become damaged or thermally deformed.

WARNING:

RF INTERFERENCE

1. This is a Class A product. In a domestic environment this product may cause radio interference, in which case, the user may be required to take adequate measures.

ARC LAMP CHARACTERISTIC CONSIDERATIONS

1. Arc lamps require a period of time to relight after a power interruption or a severe voltage dip. In some cases, lamp will automatically relight after it has cooled depending on Lamp Power-Up State configuration setting.
2. Burning position is Universal.

Sicherheitshinweise

Es ist äußerst wichtig, ALLE Sicherheitsinformationen und -hinweise in diesem Handbuch und dem beiliegenden Informationsmaterial zu lesen, bevor Sie die hierin beschriebenen Produkte installieren bzw. bedienen. Halten Sie bei der Installation und dem Einsatz dieses Produkts alle Warnhinweise und Vorsichtsmaßnahmen ein.

Folgende Sicherheitssymbole werden in diesem Handbuch verwendet:



VORSICHT - weist auf möglichen Produktschaden hin.



WARNUNG - weist auf mögliche Körperverletzung und Lebensbedrohung hin.

NACHSTEHEND FINDEN SIE ALLGEMEINE HINWEISE ÜBER SICHERHEITSVORKEHRUNGEN GEGEN ELEKTROSCHOCK, FEUER, ÜBERHÖHTE UV-STRAHLUNG UND KÖRPERVERLETZUNGEN.

WARNUNG:

HINWEISE ZUM FEUERSCHUTZ

1. VARI***LITE**®-Scheinwerfer sind ausschließlich für den Einsatz mit bestimmten Lampentyps. Achten Sie auf den Lampentyp (1500 Watt metal halide lamp; see page 11), bevor Sie die jeweiligen Lampen ersetzen. Die Installation eines anderen Lampentyps kann gefährlich sein.
2. Scheinwerfer können auf jeder beliebigen Oberfläche montiert werden, solange Sie die Montageanweisungen befolgen. Detaillierte Hinweise finden Sie in diesem Handbuch.
3. Beachten Sie die Einhaltung des erforderlichen Sicherheitsabstandes der VARI***LITE**®-Scheinwerfer von brennbarem Material oder beleuchteten Objekten.

WARNUNG:

HINWEISE ZUM SCHUTZ GEGEN ELEKTROSCHOCK

1. VARI***LITE**®-Scheinwerfer eignen sich ausschließlich für trockene Standorte. Regen oder Feuchtigkeit können die Scheinwerfer beschädigen.
2. Unterbrechen Sie die Stromzufuhr, bevor Sie mit der Arbeit an VARI***LITE**®-Geräten beginnen.
3. Die Geräte sollten nur von qualifiziertem Personal gewartet werden.

WARNUNG:

HINWEISE ZUM SCHUTZ GEGEN ÜBERHÖHTE UV-STRAHLUNG

1. Viele VARI**LITE*®-Scheinwerfer verwenden die Lampentyp, der UV-Strahlen abgibt. SCHAUEN SIE NICHT direkt in die Lampe.
2. Es ist gefährlich, Leuchten ohne Linsen oder Blenden zu bedienen. Blenden, Linsen oder Ultraviolettscirme müssen ausgetauscht werden, sofern deren Schutzwirkung durch sichtbare Beschädigung (z. B. Sprünge oder Schrammen) eingeschränkt ist.

WARNUNG:

HINWEISE ZUM SCHUTZ GEGEN KÖRPERVERLETZUNGEN

1. Bei Betrieb sind die Außenflächen der Scheinwerfer heiß. Verwenden Sie bei der Bedienung von aufgeheizter Apparatur die jeweils geeignete Sicherheitsausrüstung (Handschuhe, Augenschutz etc.).
2. Bei Betrieb der Scheinwerfer ist die Lampe heiß. Unterbrechen Sie die Stromzufuhr und lassen Sie die Lampe abkühlen, wenn Sie diese austauschen.
3. Bogenlampen senden ultraviolette Strahlen aus, die Hautverbrennungen und Augenentzündungen verursachen können. Der Betrieb von Bogenlampen erfolgt unter Hochdruck und bei hohen Temperaturen. Sollte die Lampe zerbrechen, besteht die Gefahr von Körperverletzung bzw. von Feuer, das von Lampenteilen ausgelöst werden kann.
4. Tragen Sie beim Austausch der Lampen einen Augenschutz.
5. Die geeignete Sicherheitsausrüstung (Handschuhe, Augenschutz) sollte beim Umgang mit beschädigten Lampen verwendet werden.
6. Wenn die Lampe mit bloßen Händen berührt wird, reinigen Sie sie mit denaturiertem Alkohol und einem flusenfreien Tuch, bevor Sie die Scheinwerfer installieren oder in Betrieb nehmen.
7. Wenn die Lampe beschädigt oder durch Hitzeeinwirkung deformiert ist, muß diese ausgetauscht werden.

WARNUNG:

HF-INTERFERENZ

1. Es handelt sich um ein Produkt der Klasse A. In einer Wohnumgebung kann das Produkt Hochfrequenzstörungen verursachen. In diesem Fall müssen eventuell geeignete Maßnahmen getroffen werden.

BESONDERHEITEN VON BOGENLAMPEN

1. Bogenlampen benötigen eine gewisse Zeitdauer, um nach einem Stromausfall oder einem Spannungsgefälle wieder aufzuleuchten. In einigen Fällen wird die Lampe nach Abkühlung automatisch wieder aufleuchten, je nach der Systemkonfigurationseinstellung des Lampeneinschaltungsstatus.
2. Die Brennposition ist Universal.

Notes de sécurité

Avant de procéder à l'installation des produits décrits dans ce guide et de les mettre en marche, il est extrêmement important de lire TOUS les renseignements et TOUTES les directives de sécurité contenues dans ce guide ainsi que toute documentation jointe. Tenir compte de tous les avertissements et suivre toutes les précautions pendant l'installation et l'utilisation de cet appareil.

Les symboles de sécurité utilisés dans ce guide sont les suivants :



ATTENTION Ce symbole annonce que l'appareil risque d'être endommagé.



AVERTISSEMENT Ce symbole annonce qu'il y a risque d'accident grave ou même fatal.

CETTE SECTION CONTIENT DES INFORMATIONS GÉNÉRALES POUR SE PROTÉGER CONTRE LES DÉCHARGES ÉLECTRIQUES, LES INCENDIES, L'EXPOSITION EXCESSIVE AUX RAYONS UV ET TOUT AUTRE ACCIDENT POUVANT ENTRAÎNER DES BLESSURES.

AVERTISSEMENT:

DIRECTIVES POUR SE PROTÉGER CONTRE LES INCENDIES

1. Les luminaires VARI***LITE**® ont été conçus pour être utilisés uniquement avec certaines type de lampes. Vérifier le type de lampe (1500 Watt metal halide lamp; see page 11) avant de remplacer les lampes. L'installation d'un autre type de lampe peut poser un danger.
2. Les luminaires peuvent être fixés sur tout type de surface tant que les directives de montage sont respectées. Voir les explications détaillées dans ce guide.
3. Vérifier la distance à respecter entre les matériaux combustibles ou les objets illuminés et les luminaires VARI***LITE**®.

AVERTISSEMENT:

DIRECTIVES POUR SE PROTÉGER CONTRE LES DÉCHARGES ÉLECTRIQUES

1. Les luminaires VARI***LITE**® sont conçus pour une utilisation au sec uniquement. Une exposition à la pluie et à l'humidité risque d'endommager le luminaire.
2. Débrancher l'appareil avant de procéder à la révision de tout matériel VARI***LITE**®.
3. Les révisions doivent être effectuées uniquement par des personnes qualifiées.

AVERTISSEMENT:

DIRECTIVES POUR SE PROTÉGER CONTRE UNE EXPOSITION EXCESSIVE AUX RAYONS UV

1. Plusieurs luminaires VARI**LITE*® utilisent une lampe qui produit des rayons UV. NE PAS fixer son regard sur la lampe.
2. L'utilisation des luminaires sans lentille ou blindage pose des risques. Tous blindages, lentilles ou écrans ultraviolet visiblement endommagés au point que leur efficacité en est affectée doivent être remplacés, par exemple s'il y a des fissures ou de profondes rayures.

AVERTISSEMENT:

DIRECTIVES POUR SE PROTÉGER CONTRE LES ACCIDENTS POUVANT ENTRAÎNER DES BLESSURES

1. Les surfaces externes du luminaire deviennent brûlantes quand l'appareil est en marche. Pour manœuvrer ou ajuster des appareils brûlants et leurs composants, se protéger suffisamment (gants, protection pour les yeux, etc.).
2. La lampe du luminaire est brûlante lorsqu'il est en marche. Débrancher le courant et attendre que la lampe ait refroidi avant de la remplacer.
3. Les lampes à arc émettent des rayons ultraviolets pouvant causer de graves brûlures sur la peau et une inflammation des yeux. De plus, les lampes à arc fonctionnent sous haute tension à de très hautes températures. Si la lampe se casse, les particules de la lampe cassée peuvent causer blessures et/ou incendie en s'éparpillant.
4. Se protéger les yeux pour remplacer la lampe.
5. Utiliser des appareils de protection appropriés (gants, protection des yeux) pour manier des lampes endommagées.
6. Si la lampe a été touchée avec des mains nues, la nettoyer avec de l'alcool dénaturé et l'essuyer avec un chiffon non-pelucheux avant d'installer ou de brancher le luminaire.
7. Si la lampe a été endommagée ou a reçu une déformation thermique, elle doit être remplacée.

AVERTISSEMENT:

INTERFÉRENCE RF

1. Cet appareil est de Classe A. Dans un environnement domestique, cet appareil peut causer des interférences radio, et si c'est le cas, l'utilisateur peut avoir à prendre des mesures adéquates.

CONSIDÉRATIONS DES CARACTÉRISTIQUES DE LAMPES À ARC

1. Après une interruption de courant ou une baisse importante de voltage, les lampes à arc mettent du temps avant de se rallumer. Dans certains cas, la lampe se rallumera automatiquement après s'être refroidie. Cela dépend de la manière dont le système est réglé pour le statut de mise en marche de la lampe.
2. La position Brûler est Universelle.

Aviso sobre Seguridad

Es muy importante leer TODA la información e instrucciones sobre seguridad que se indica en este manual así como en los documentos adjuntos antes de instalar y operar los productos descritos. Se debe prestar atención a todos los avisos y advertencias durante la instalación y uso de este producto.

Los símbolos de seguridad usados en este manual son los siguientes:



CUIDADO, indica posibles daños al producto.



ADVERTENCIA, indica posibles lesiones o muerte a las personas.

LA INFORMACIÓN GENERAL RELACIONADA A LA PROTECCIÓN CONTRAGOLPES DE CORRIENTE ELÉCTRICA, INCENDIO, EXPOSICIÓN EXCESIVA A RADIACIÓN ULTRA VIOLETA Y LESIONES A LAS PERSONAS SE PUEDE ENCONTRAR SEGUIDAMENTE:

ADVERTENCIA:

INSTRUCCIONES PARA PROTECCIÓN CONTINUA CONTRA INCENDIO

1. Las luminarias VARI***LITE**® han sido diseñadas para ser usadas solamente con algunas lámparas. Tome nota del tipo de lámpara (1500 Watt metal halide lamp; see page 11) antes de reemplazarla. Instalación de otro tipo de lámpara puede ser peligroso.
2. Las luminarias se pueden instalar en cualquier tipo de superficie siempre que se sigan las instrucciones de instalación. Vea las instrucciones detalladas en este manual.
3. Tome nota de los requerimientos de distancia de materiales combustibles u objetos iluminados para las luminarias VARI***LITE**®.

ADVERTENCIA:

INSTRUCCIONES PARA PROTECCIÓN CONTINUA CONTRA CHOQUE ELÉCTRICO

1. Las luminarias VARI***LITE**® están diseñadas solamente para lugares secos. La exposición a la lluvia o humedad pueden dañar la luminaria.
2. Desconecte la energía antes de dar servicio a cualquier equipo de VARI***LITE**®.
3. El servicio debe ser realizado solamente por personal calificado.

ADVERTENCIA:

INSTRUCCIONES PARA PROTECCIÓN CONTINUA CONTRA LA EXPOSICIÓN EXCESIVA DE RADIACIÓN ULTRA VIOLETA

1. Muchas luminarias VARI*LITE® usan un tipo de lámpara que produce radiación UV. NO mire directamente a la lámpara.
2. Es peligroso operar luminarias sin lentes o protectores. Debe cambiar los protectores, lentes o pantallas ultravioletas si se aprecia que han sido dañadas, y que su efectividad pudiera estar deteriorada. Por ejemplo, si tuvieran rajaduras o raspaduras profundas.

ADVERTENCIA:

INSTRUCCIONES PARA PROTECCIÓN CONTRA LESIONES DE PERSONAS

1. Las superficies exteriores de las luminarias están calientes durante su operación. Use un equipo de seguridad apropiado (guantes, protección para los ojos, etc.) cuando haga ajustes en el equipo y componentes que están calientes.
2. Cuando las luminarias están en operación la lámpara estará muy caliente. Desconecte la energía y deje que la lámpara se enfríe antes de reemplazarla.
3. Las lámparas de arco emiten radiaciones ultravioletas que pueden ocasionar serias quemaduras a la piel e inflamación a los ojos. Además, las lámparas de arco operan a alta presión y muy alta temperatura. Si la lámpara se rompe, puede existir el peligro de lesiones al personal o un incendio ocasionado por las partículas de la lámpara rota que se caen.
4. Use protección para los ojos cuando vuelve a colocar una lámpara nueva.
5. Use un equipo de seguridad apropiado (guantes, protección para los ojos, etc.) cuando trabaje con lámparas dañadas.
6. Si toca la lámpara con las manos, limpie la lámpara con alcohol desnaturalizado y con tela sin pelusas antes de instalar o volver a conectar la luminaria.
7. Cambie la lámpara si está dañada o deformada termicamente.

ADVERTENCIA:

INTERFERENCIA RF

1. Este es un producto de Clase A. En el ambiente de la casa este producto puede ocasionar radiointerferencia, en cuyo caso, el usuario debe tomar las medidas adecuadas.

CONSIDERACIONES SOBRE LAS CARACTERÍSTICAS DE LA LÁMPARA DE ARCO

1. Las lámparas de arco requieren un período de tiempo para volver a iluminarse después de una interrupción de energía o de una severa caída de voltaje. En algunos casos, la lámpara se volverá a iluminar en forma automática después que se ha enfriado dependiendo de la configuración del sistema de energía de la lámpara.
2. La posición de encendido es universal.

安全性に関する注意事項

ここに記載されている製品を取り扱う場合は、まず本マニュアルおよび付属のマニュアルの安全性に関する情報と説明をすべてお読みください。また、実際に本製品を取り付けたり使用する際には、すべての注意事項および警告に留意して作業してください。

本マニュアルでは、以下の安全マークを使用しています。



注意：製品に損傷を与える危険性があります。



警告：人身事故につながる危険性があります。

感電、火災、UV 放射に対する過度の露出、および人身事故を防ぐための一般的な情報については、以下の説明をお読みください。

警告：

火災の発生を防ぐためのヒント

1. VARI*LITE® 照明器具は、ランプを使用するように設計されています。ランプを交換する際は、ランプの種類（など）を確認するようにしてください。他の種類のランプを取り付けると危険です。
2. 照明器具は、本マニュアルの指示に従って操作するかぎり、どのようなタイプの表面にでも取り付けることができます。詳細については、本マニュアルを参照してください。
3. ヒューズを交換する場合は、同じヒューズ（同じ種類、同じクラス）を使用してください。
4. VARI*LITE® 照明器具は、可燃性物質または他の光源から必要な距離だけ離して配置してください。

警告：

感電を防ぐためのヒント

1. VARI*LITE® 照明器具は、乾燥した環境で使用するよう設計されています。雨で濡れる場所や湿気の多い場所に取り付けると、照明器具が傷むことがあります。
2. VARI*LITE® 照明器具を修理点検する場合は、必ず先に電源を切ってください。
3. 照明器具の修理点検は、資格を持つ技師のみが行うようにしてください。

警告：

過度の UV 放射にさらされないためのヒント

1. VARI*LITE® 照明器具の多くは、UV 放射を生ずる HID タイプのランプを使用しています。ランプを直視することは避けてください。
2. レンズまたはシールドを使わずに照明器具を点灯すると危険です。レンズ、シールド、紫外線画面は、ひび割れや深い引っかき傷などにより、その効力が損なわれるようになったら取り替えるようにします。

警告：

人身事故を防ぐためのヒント

1. 照明器具が点灯しているときは、その外側が熱くなります。熱くなった器具やコンポーネントを取り扱う際には、適切な防具（手袋や保護用眼鏡）を使用してください。
2. 照明器具が点灯しているときは、そのランプが熱くなります。ランプを交換する場合は、照明器具の電源を切り、ランプの温度が下がるまで待ってください。ランプの裏ぶたをあけると、遮断スイッチが働いて、ランプの電源が切れる場合があります。
3. アーク灯は紫外線を放射します。この紫外線によって、ひどい火傷を負ったり、目の炎症を起こすことがあります。さらに、アーク灯は、高圧高温の状態で光を発します。そのため、万一アーク灯が破損すると、飛び散った破片で人身事故や火災が発生する危険性があります。
4. 再点灯するときには、保護用眼鏡を着用してください。
5. 損傷したランプを取り扱う場合は、適切な防具（手袋や保護用眼鏡）を着用してください。
6. 手袋を着用せずに直接手でランプを触った場合は、変性アルコールを使ってランプをきれいにし、糸くずの出ない布で拭いてから照明器具を取り付け、電源を入れるようにします。
7. 傷がついたランプや熱によって変形したランプは取り替えてください。

警告：

RF 干渉

1. 本製品は Class A に分類されます。本製品は、家庭環境において無線干渉を起こす可能性があります。その場合、使用者は適切な処置を取らなければならないことがあります。

アーク灯の特性

1. 停電後または大きな電圧ディップ後にアーク灯を再点灯する場合は、しばらく時間をおくようにしてください。Lamp Power-Up State) システム設定によっては、温度が下がったときに自動的に再点灯される場合もあります。
2. アーク灯は点光源です。

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Introduction

About This Manual

This manual provides necessary information regarding safety, installation, operation and routine maintenance for the VARI***LITE**® VL3500™ Wash Luminaire. Familiarizing yourself with this information will help you to get the most out of your luminaire.



WARNING: It is important to read ALL accompanying safety and installation instructions to avoid damage to the product and potential injury to yourself or others.

This manual covers the following models:

| Model | Part Number | Source |
|------------------------|--------------|--------|
| VL3500™ Wash Luminaire | 20.9686.0001 | Arc |

Additional Documentation

A service manual for extended maintenance of the VL3500™ Wash Luminaire is available in both printed and electronic (PDF) formats:

- VL3500™ Wash Luminaire Service Manual (02.9686.0010)
- Testing, Troubleshooting, Component Replacement and Illustrated Parts Breakdown.

Note: Performing maintenance procedures may void the product warranty. Refer to the Vari-Lite Limited Warranty card included in the product shipping package for more information.

For more information regarding DMX512 systems, refer to the following document available from United States Institute for Theatre Technology, Inc. (USITT):

- Digital Data Transmission Standard for Dimmers & Controllers plus AMX 192 Analog Multiplex Data Transmission Standard for Dimmers & Controllers. (A copy of Recommended Practice for DMX512 is included.)

USITT Inc.
6443 Ridings Road
Syracuse, New York 13206-1111 USA
Tel: (800) 938-7488 Fax: (866) 398-7488 / www.usitt.org

Text Conventions

The following styles and meanings are used throughout this manual:

| Style | Meaning |
|----------------------|--|
| [Button] | Front panel button. Example: Press [Menu]. |
| [Up] / [Down] arrows | Press either [Up] or [Down] arrow button at Menu Display. |
| MENU | LCD Menu Display read-out. Example: Press [Up] / [Down] arrows until LAMP appears. |

Customer Service

Our Goal

At Vari-Lite, we are committed to providing you the highest quality in customer service. Our comprehensive resources are available to help your business succeed and ensure you get the full benefit of being a Vari-Lite customer. Whether your needs are telephone troubleshooting assistance, product training or technical service, our full-time staff of experienced professionals are on-hand to provide support.

How to Reach Us

For assistance in your area, call the dealer from which your product was purchased. *or* Contact an Authorized Service Center *or* Contact the Vari-Lite Customer Service Department, 9am -6pm CST Monday through Friday, at the following:

phone: 1-877-VARI-LITE (1-877-827-4548) or +1-214-647-7880

email: customerservice@genlytecontrols.com

Additional Resources

For additional resources and documentation, please visit our website at www.vari-lite.com and follow the Support link.



CHAPTER 1.

Description

This chapter contains descriptions of luminaire features and components, along with a list of accessories that are available.

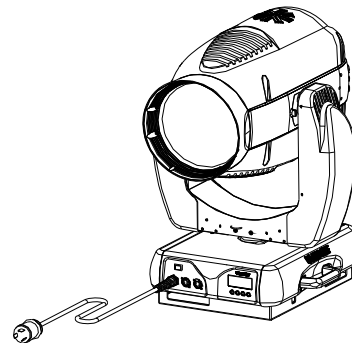
- **Features**
- **Components**

Features

Standard Features

All VL3000 series luminaire have the following standard features:

- Three filter CYM color mixing system.
- Variable CTO color correction wheel.
- Full field dimming system.
- Dual blade strobe system.
- Repositional pan/tilt system.
- Control by DMX512 protocol.
- Fan cooled.
- UV/IR glass.
- 1200W lamp source.



Specific Features

VL3500 Wash Luminaire

- VARI**BRITE*™ mode - produces a tight, intense column of light.
- Zoomable beam optics mechanism for continuous beam size control with 10° to 50° range, which depends the on lens configuration.
- Dual five-position (plus open) fixed color wheels.
- Interchangeable front lenses: Fresnel, Plano Convex Stippled, or Plano Convex Clear.
- 1500W, double-ended, short arc lamp.
- Five-position aperture wheel: 52, 40, 35, 30, and 25 mm.



WARNING: Some exceptional conditions apply to the safe operation of the VL3500™ Wash Luminaire. See [“Warnings and Cautions” on page 11.](#)

Components

Included Items

The following illustration shows all items included with the luminaire:

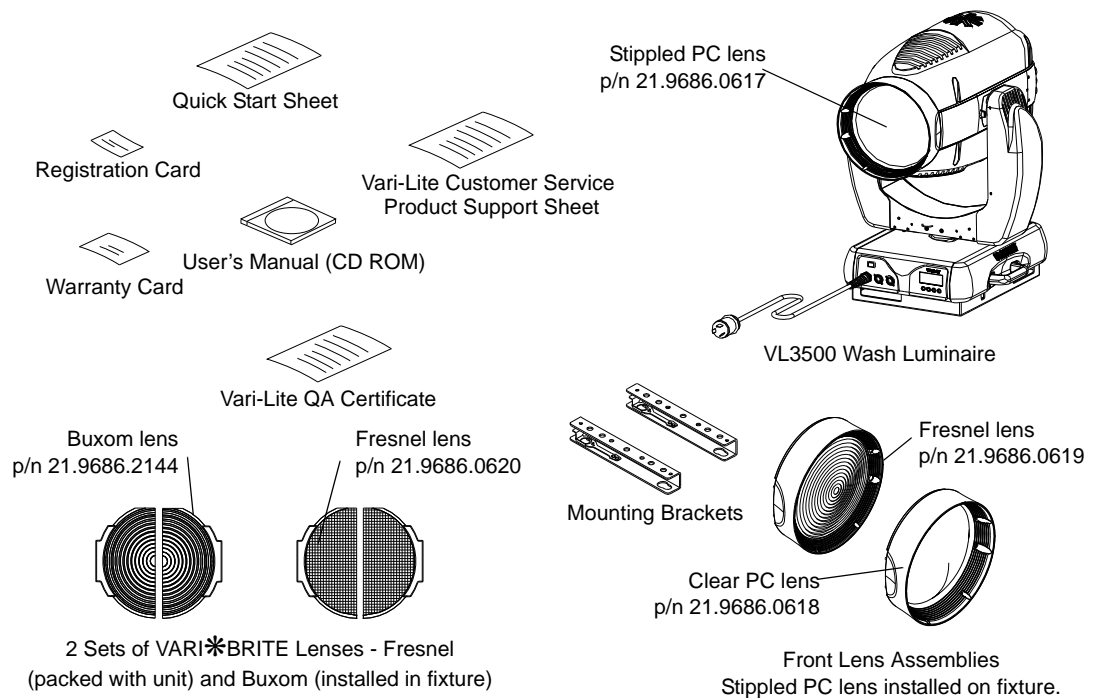


Figure 1-1: VL3500™ Wash Luminaire Packing List

Replacement Items/Accessories

The following optional and/or replacement items can be ordered directly from Vari-Lite. (Please order by Vari-Lite part number.)

| Vari-Lite P/N | Accessory |
|---------------|---|
| 22.9620.0194 | Safety Cable Assembly |
| 23.9623.0177 | DMX Termination Connector Assembly |
| 55.6840.0001 | Truss Hook, Mega-Clamp, Round and Square |
| 55.6841.0001 | Truss Hook, Mega-Claw for 2" Round Tube |
| 71.9686.1500 | Philips MSR Gold 1500 SA DE metal halide lamp, 6000°K CCT |
| 71.9686.1501 | Philips MSR Gold 1500 SA/2 metal halide lamp, 7500°K CCT |

Luminaire Overview

The following illustration shows the external luminaire components and controls.

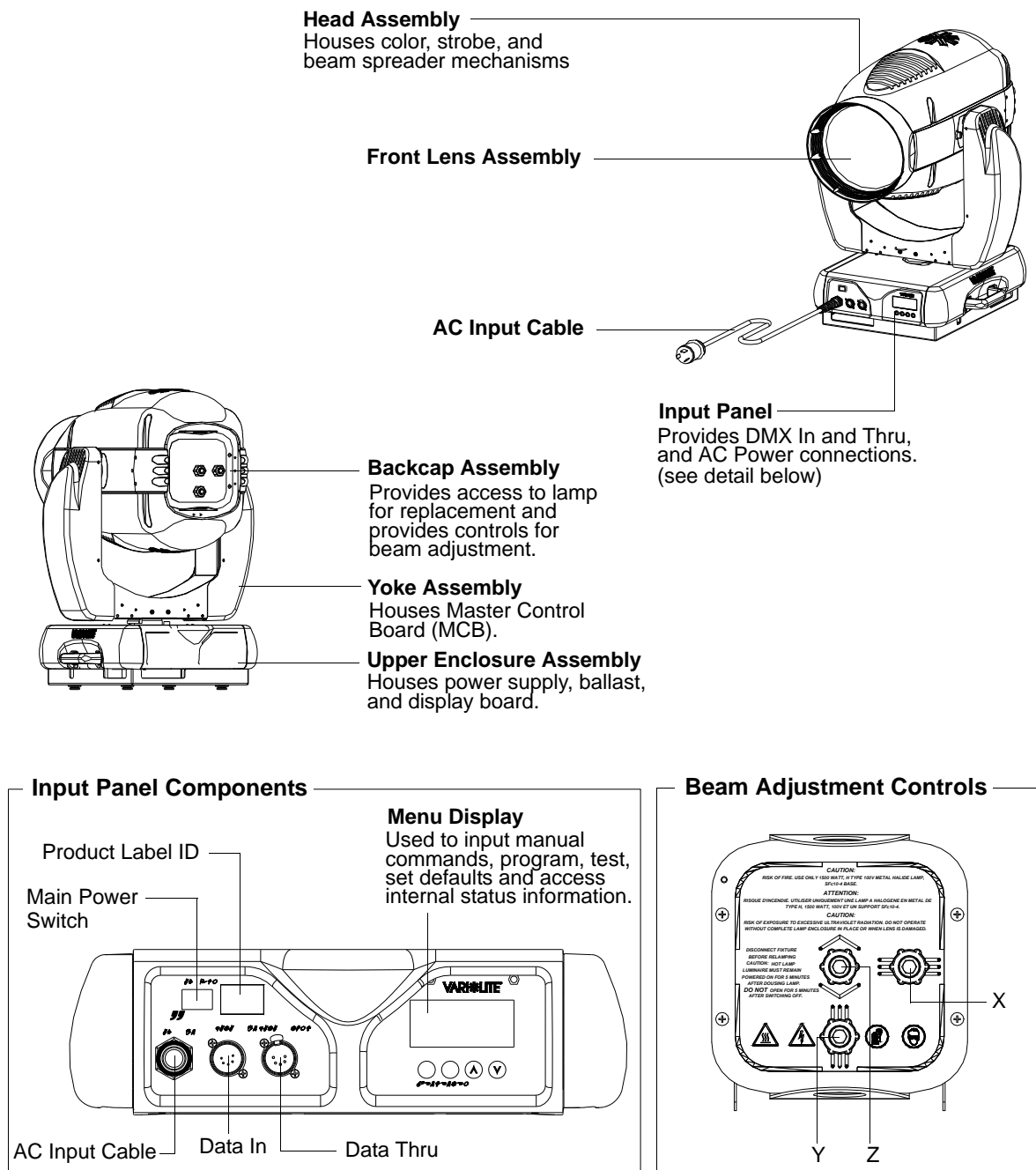


Figure 1-2: VL3500™ Wash Luminaire External Components and Controls



CHAPTER 2.

Installation

This chapter contains instructions for installation of the luminaire. It includes connecting power and data, along with instructions for powering up the luminaire for the first time and addressing it within your system.

- **Power and Data Cabling Requirements**
- **Warnings and Cautions**
- **Installation Procedures**
- **Powering Up**
- **Addressing**

Power and Data Cabling Requirements

Power

The luminaire requires standard AC power distribution from 200-240 VAC, 50/60 Hz. Ten amps is required.

Depending on the application, the luminaire's AC input cable may require a different connector. If required, install a new connector meeting your requirements using the following wire color code:

| Wire* | Connection |
|--------------|------------|
| Green/Yellow | AC Ground |
| Blue | AC Neutral |
| Brown | AC Line |

* International (Harmonized) Standard

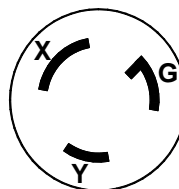


WARNING: DO NOT connect to three-phase Delta service in countries with 240 volt power.

Note: The lamp will not strike below 180 volts RMS. The following socket configurations are typical; other countries can use different socket configurations.

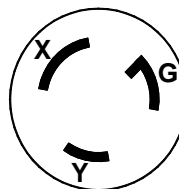
For single-phase power at 200-240 volts RMS:

| Connection | Pin |
|----------------|-----|
| AC Neutral | X |
| AC Line | Y |
| Ground (Earth) | G |



For three-phase power at 208 volts RMS:

| Connection | Pin |
|----------------|-----|
| Phase 1 | X |
| Phase 2 | Y |
| Ground (Earth) | G |



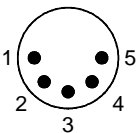
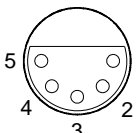
Data Cables

The VL3500™ Wash Luminaire is equipped with two, 5-pin XLR connectors for DATA IN and DATA THRU (out) applications. DATA IN requires a 5-pin, female XLR connector and DATA THRU requires a 5-pin, male XLR connector. When purchasing or constructing data cables, it is important that not only the correct cable type be used, but also quality cable to ensure a reliable DMX512 system. Your cabling should meet the following USITT DMX specification requirements:

- Suitable for use with EIA485 (RS485) operation at 250k baud.
- Characteristic impedance 85-150 ohms, nominally 120 ohms.
- Low capacitance.
- Two twisted pairs.
- Foil and braid shielded.
- 24 AWG minimum gauge for runs up to 1000 feet (300m).
- 22 AWG minimum gauge for runs up to 1640 feet (500m).

Note: Microphone type cables and other general purpose, two-core audio or signal cables are not suitable for use with DMX512.

The XLR 5-pin connectors should be wired as follows:

| Pin/Wire Code to XLR Connectors | | | | | | |
|--|-----------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|--|
| Data Thru Cable Pinout | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Data In Cable Pinout |
|  <p>Male Conn</p> | Foil & Braided Shield | 1st conductor of 1st twisted pair | 2nd conductor of 1st twisted pair | 1st conductor of 2nd twisted pair | 2nd conductor of 2nd twisted pair |  <p>Female Conn</p> |
| | | Data (-) | Data (+) | Data (-) | Data (+) | |

Note: Refer to the USITT Recommended Practice for DMX512 guide for additional information regarding DMX512 systems. How to obtain a copy is detailed in [“Additional Documentation” on page 1](#).

Recommended Cable Types/Manufacturers

These are only a few of the suitable cable types. Any quality EIA485, twisted pair, 120 ohm, shielded cable will also work.

Table 2-1: Recommended Cable Types

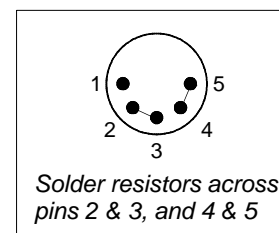
| Type | Pairs | ZΩ* | Jacket | AWG | Use | Temp (F) |
|----------------|-------|-----|--------------|------------|-------------------------|----------|
| Belden Cables | | | | | | |
| 1215A | 2 | 150 | PVC | 26 | IBM Type 6 Office cable | 75 |
| 1269A | 2 | 100 | PTFE | 22 (Solid) | High Temp, Plenum cable | 200 |
| 8102 | 2 | 100 | PVC | 24 | UL2919 | 80 |
| 8132 | 2 | 120 | PVC | 28 | UL2919 | 80 |
| 8162 | 2 | 100 | PVC | 24 | UL2493 | 60 |
| 82729 | 2 | 100 | PTFE | 24 | High Temp, Plenum cable | 200 |
| 88102 | 2 | 100 | PTFE | 24 | High Temp, Plenum cable | 200 |
| 89696 | 2 | 100 | PTFE | 22 | High Temp, Plenum cable | 200 |
| 89729 | 2 | 100 | PTFE | 24 | High Temp, Plenum cable | 200 |
| 89855 | 2 | 100 | PTFE | 22 | High Temp, Plenum cable | 200 |
| 9729 | 2 | 100 | PVC | 24 | UL2493 | 60 |
| 9804 | 2 | 100 | PVC | 28 | UL2960 | 60 |
| 9829 | 2 | 100 | PVC | 24 | UL2919 | 80 |
| 9842 | 2 | 120 | PVC | 24 | UL2919 | 80 |
| Proplex Cables | | | | | | |
| PC224P | 2 | 110 | Polyurethane | 22 | Heavy Duty and Portable | 105 |
| PC224T | 2 | 110 | PVC | 22 | UL2464 | 105 |
| PC226T | 3 | 110 | PVC | 22 | UL2464 | |

* Characteristic Impedance

Male Termination Connector

A male XLR termination connector is required at the last luminaire (or “far end of the line”) to prevent signal reflections. Signal reflections may cancel out the signal at certain line lengths, resulting in errors. The terminator is also necessary for software downloads and running tests on multiple luminaires. To construct your own connector, you will need the following components:

- 5-pin, male XLR connector.
- Two 1/4W 5% 120 ohm resistors.



Note: A male termination connector is also available as an accessory from Vari-Lite. See [“Replacement Items/Accessories” on page 5](#).

Warnings and Cautions

Exceptional Safety Information for the VL3500 Wash

The light intensity and power density of the VL3500™ Wash Luminaire exceeds other fixtures typically used in this application. The warnings and cautions that follow are critically important to the safe operation of the VL3500 Wash. This product is for commercial use only. If you have any questions about the safe installation and operation of the VL3500™ Wash Luminaire, please contact VARI*LITE customer service at 1-877-VARI-LITE (1-877-827-4548), +1-214-647-7880, or customerservice@genlytecontrols.com.

**WARNING: Light Beam Projects Intense Heat**

Do not illuminate objects within 3.5 m (11.5 feet) of the VL3500™ Wash Luminaire. Objects within this range can scorch, melt, or ignite from the heat projected by the light beam.

**WARNING: High Intensity Light Output**

Do not look directly into the light beam. Avoid looking at nearby surfaces illuminated by the beam. It is hazardous to operate luminaires without lens or shield. Shields, lenses, or ultraviolet screens must be changed if they have become visibly damaged to such an extent that their effectiveness is impaired. For example, by cracks, deep scratches, or coating breakdown.

**WARNING: Hot Exterior Surfaces**

The exterior surfaces of the luminaire can get very hot—up to 170°C (338°F). Do not touch any surface of the luminaire while it is operating. Keep all combustible materials a minimum of 200 mm (8 inches) away from the luminaire. To maintain cooling fan operation after the lamp is doused, keep the luminaire powered on for 5 minutes. Wait an additional 5 minutes before touching the luminaire.

**CAUTION: Operating Environment**

Do not operate the luminaire when the ambient temperature exceeds 40°C (104°F). Do not attempt to bypass thermostatic switches.

**WARNING: Approved Lamp Types**

Two lamps are specified for safe use in the VL3500 Wash:

Philips MSR Gold 1500 SA/DE

Philips MSR Gold 1500 SA/2/DE

Installing any other type of lamp can be hazardous.

Installation Procedures

Hanging the Luminaire

The VL3500™ Wash Luminaire can be hung horizontally or vertically from any structure designed to work with the type of load created by this moving luminaire. Two mounting bracket assemblies (provided) are used to attach truss hooks or other mounting hardware as required. Many compatible truss hooks are available from different manufacturers for your particular needs.

A minimum of one hook per truss hook bracket is required. If mounting method does not use truss hooks, two attachment points per truss hook bracket are required. When attaching more than one point on a single bracket, the attach points must be spaced as far apart as possible using the supplied mounting holes.

Install mounting hardware and brackets:

Step 1. Install truss hooks on two provided truss hook brackets as required.

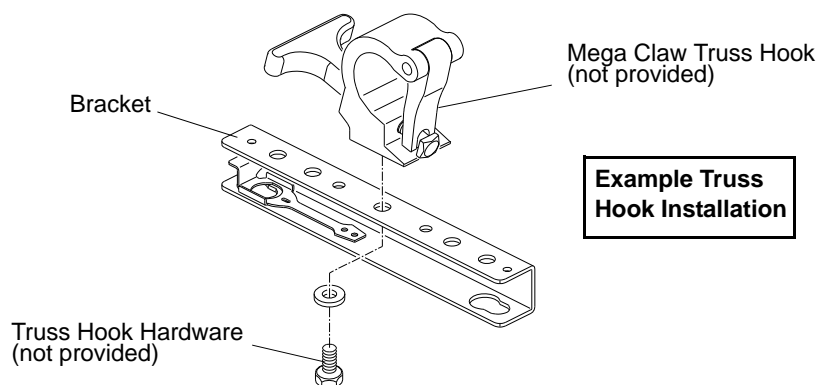


Figure 2-1: Installing Truss Hooks

Note: Various types of truss hooks can be used. The Mega Claw truss hook (as shown in the example above) as well as many other standard hooks, can be ordered separately.

Step 2. Determine required configuration of bracket installation. Brackets may be installed in either orientation as shown.

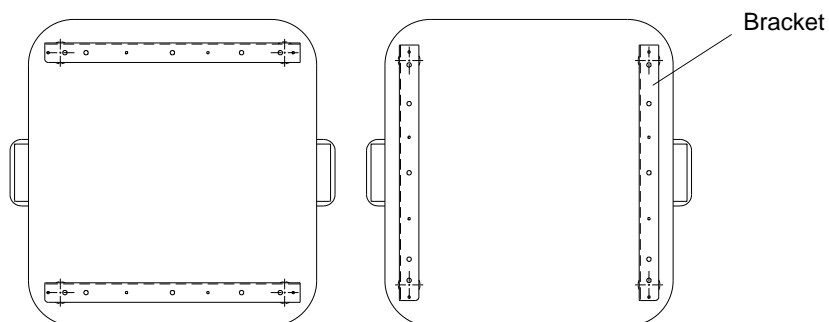


Figure 2-2: Bracket Orientation Options

- Step 3. While pulling up on locking mechanism release, fit keyed holes onto raised mounting buttons at bottom of enclosure. Slide forward and release locking mechanism to lock in place. Ensure brackets are locked securely. (Always face brackets in same direction as shown.)



WARNING: Ensure that the bracket locking mechanism is fully seated after the bracket is installed on the luminaire.

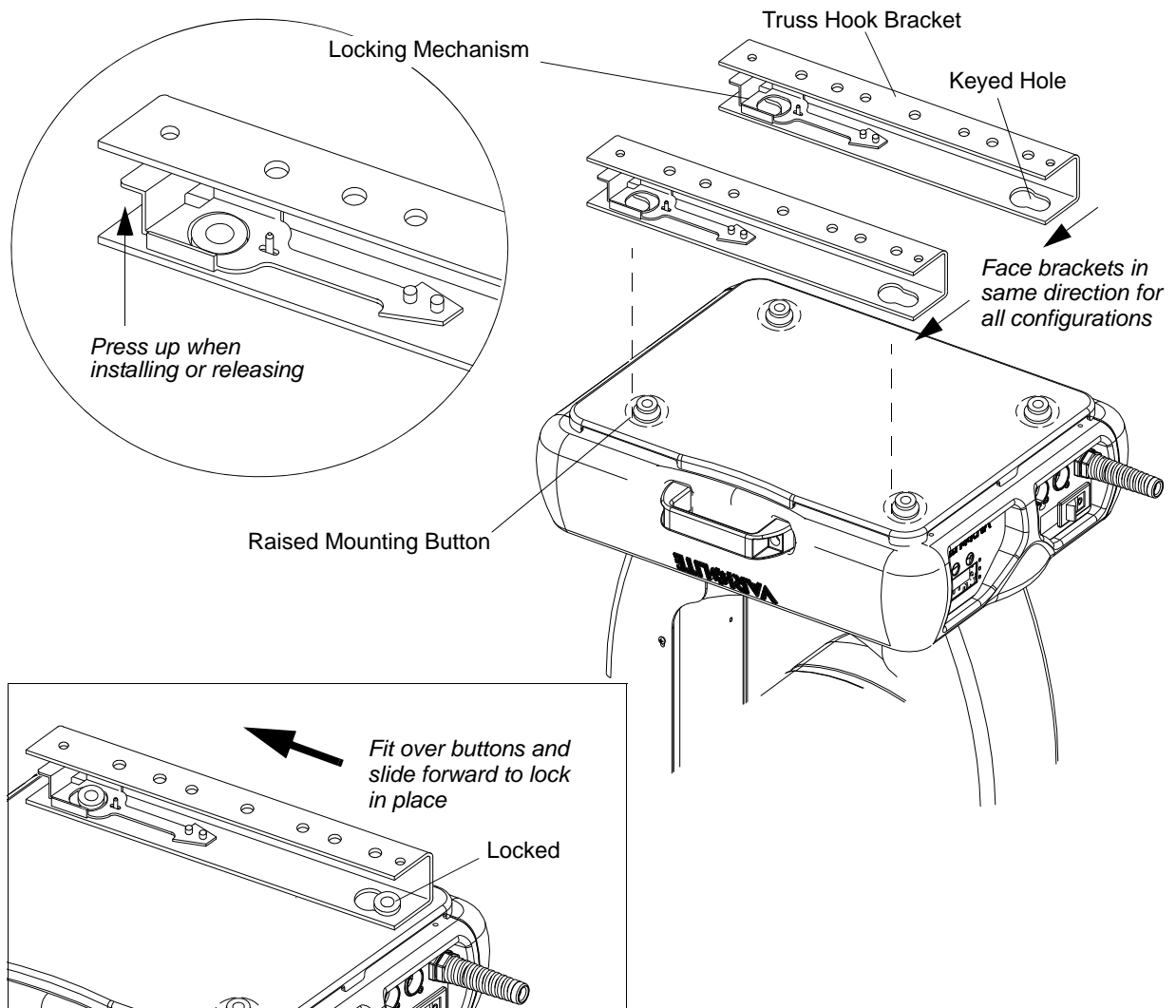


Figure 2-3: Installing Brackets on Luminaire Enclosure

Installing in Truss:

- Step 1. Using two people, lift luminaire into mounting position.
- Step 2. Secure in place with truss hook. Ensure truss hook hardware that locks hook in place (e.g. wing bolt) is properly tightened and that luminaire is fully supported.
- Step 3. Attach safety cable (as required) as follows:
 - a. Connect one end of cable to luminaire handle.
 - b. Loop at least once around truss/pipe and attach other end of cable to other handle.
- Step 4. Connect power and data cables according to procedure given in [“Connecting Data and Power” on page 15.](#)

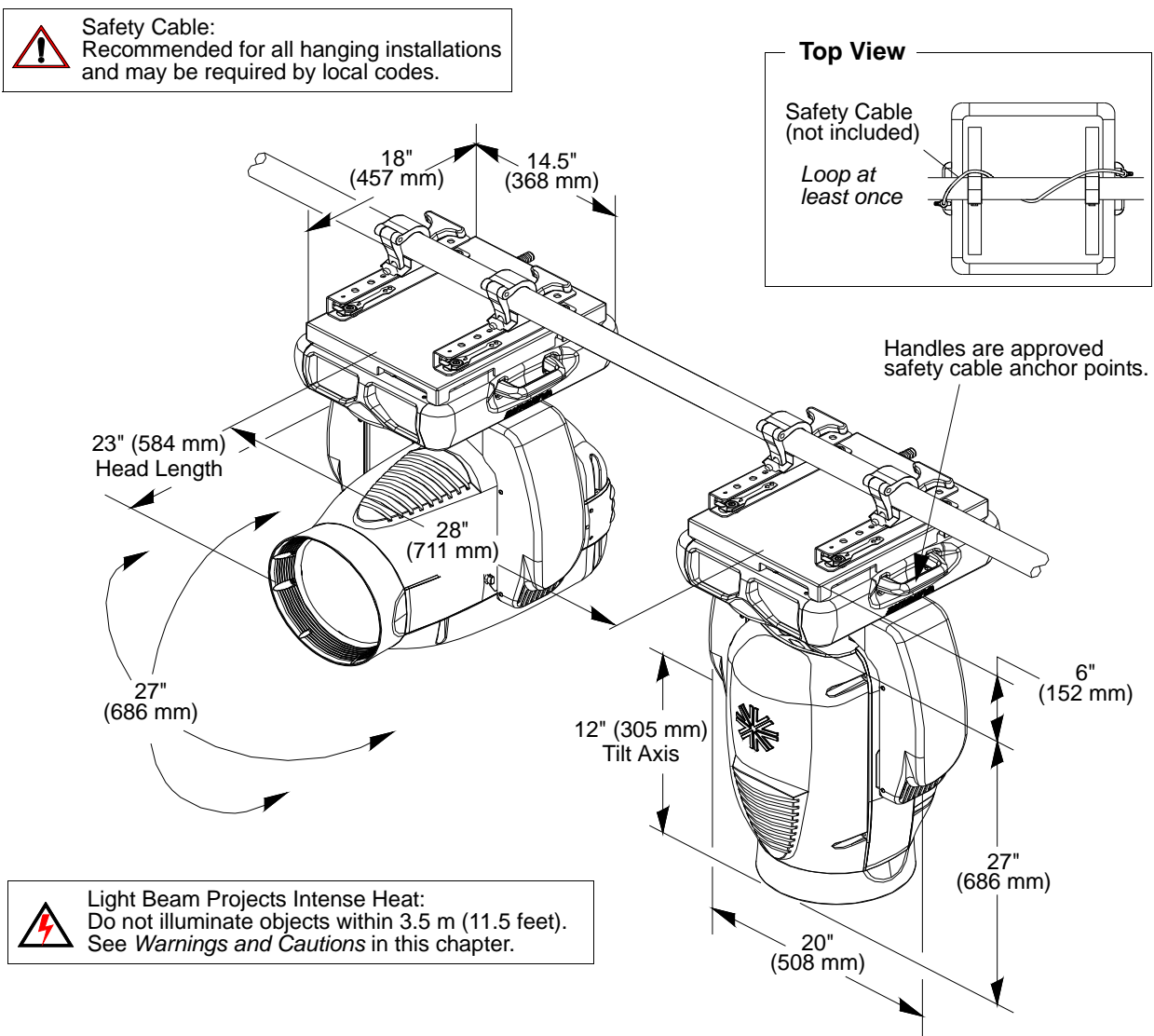
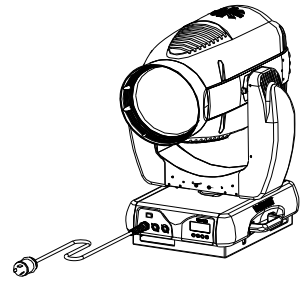


Figure 2-4: Hanging Configuration and Dimensions

Floor Mounting the Luminaire

The luminaire enclosure is sufficient to stabilize the luminaire in a floor installation, provided that the mounting surface is flat and sturdy.



Connecting Data and Power

A maximum of 32 luminaires may be connected in any one DMX data link.

Note: This maximum limit applies to the luminaire "daisy chain" only. Your system or console may require fewer luminaires on a single data link path. Consult your console documentation for more information.

To connect power and data:

- Step 1. Connect data cable from console to first luminaire in chain at DATA IN connector.
- Step 2. If required, connect additional data cables from DATA THRU connectors to DATA IN connectors of remaining luminaires in link.
- Step 3. At last luminaire in link, install male termination connector at DATA THRU connector. (Luminaires and other devices on the same DMX chain may not function properly without termination.)
- Step 4. Connect AC input cable connector to power input source.
- Step 5. Dress AC input and data cables and secure them so they do not interfere with luminaire head and yoke movement.

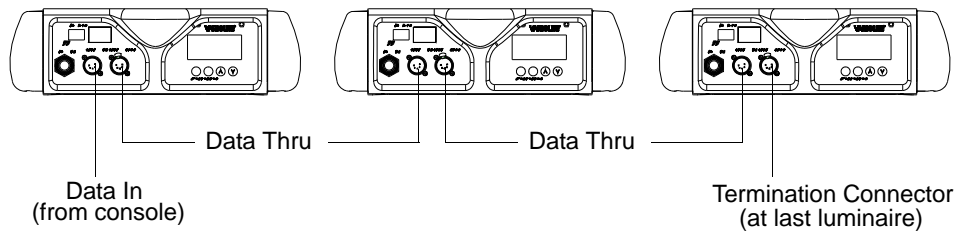


Figure 2-5: Connecting Power and Data

Powering Up

Power Up and Configuration Procedure

Because Lamp On is the default state, the lamp strikes when the luminaire is powered up for the first time. When AC power is applied, the luminaire immediately begins a calibration sequence that steps it through pan and tilt movements. The internal color and beam mechanisms also move through a full range of motion. After calibration, the luminaire head either stops at its “home” position (which positions the pan axis at mid-rotation and the head parallel to the yoke with the lens pointing away from the luminaire upper enclosure) or it moves to its current DMX-defined position when DMX data is present. All internal mechanisms also move to their “home” or DMX-defined positions.

Subsequently, depending on the luminaire’s setting for Lamp Power-Up State (refer to “[Menu System Function Chart](#)” on page 47), when power is applied, the arc lamp will either **a)** “strike” or ignite - Lamp On (*default*), **b)** await calibration and then strike - Cal On, or **c)** await manual command to strike - Lamp Off.



CAUTION: Before applying power, be sure the luminaire is hung or positioned so that the head and yoke can move freely without restriction.



WARNING: The light beam projects intense heat. Objects within 3.5 m (11.5 feet) can be damaged by the beam. Observe the power-up sequence to ensure that the beam does not illuminate objects within this range. See “[Warnings and Cautions](#)” on page 11.

To power up:

- At each luminaire, apply power by switching power switch to "I" (ON) position. Luminaire will automatically step through following procedure:
 - a. If Lamp Power-Up State is set to Lamp On, lamp will strike (ignite).
 - b. Luminaire will cycle through calibration and stop at "home" position.
 - c. If Lamp Power-Up State is set to Cal On, lamp will strike (ignite) at end of calibration sequence.

Addressing

Program Starting Address

The address setting for DMX console controlled systems is entered using the Menu Display (refer to [“Menu Operation” on page 44](#)). The luminaire retains the DMX address even when power is removed.

Note: Refer to your console operating instructions for specific information regarding its addressing requirements.

Program a DMX starting address:

- Step 1. Press [Menu].
- Step 2. Press [Up] / [Down] arrows until Address appears. Press [Enter].
- Step 3. Press [Up] / [Down] arrows to enter starting address.
- Step 4. Press [Enter] to set.

Program Starting Address Without Calibrating Luminaire

It is possible to bypass the calibration sequence and go directly to the Menu Display programming in order to pre-program an address setting.

Program starting address without calibrating luminaire:

- While powering up luminaire, press and hold [Menu]. Program address as in [Program Starting Address](#) above.

Note: The luminaire will require a reset to restore control.

Notes



CHAPTER 3.

Operation

This chapter contains instructions for operating the luminaire using DMX control and for updating the internal software.

- **DMX Operation**
- **DMX Operation**
- **DMX Mapping**
- **Luminaire Timing**
- **Updating Software**

DMX Operation

Channel Mapping

These tables assume a DMX start address of 1. When a different starting address is used, this address becomes channel 1 function and other functions follow in sequence. (There is only one DMX mode for this luminaire, which is Enhanced 16-bit Mode.)

Table 3-1: VL3000 Series Luminaire Enhanced 16-Bit Mode

| DMX Channel | Parameter | Range |
|-------------|---------------------------|----------------------------------|
| 1 | Intensity | 0 - 255 |
| 2 | Hi Byte Pan | 0 - 65535 |
| 3 | Lo Byte Pan | |
| 4 | Hi Byte Tilt | 0 - 65535 |
| 5 | Lo Byte Tilt | |
| 6 | VARI* <i>BRITE</i> ™ Mode | 0 (closed) - 255 (open) |
| 7 | Zoom | 0 (narrow) - 255 (widest) |
| 8 | CTO Mixer | 0 (open) - 255 (full saturation) |
| 9 | Cyan (Blue) Mixer | 0 (open) - 255 (full saturation) |
| 10 | Yellow (Amber) Mixer | 0 (open) - 255 (full saturation) |
| 11 | Magenta Mixer | 0 (open) - 255 (full saturation) |
| 12 | Color Wheel 1 | 0 - 216 / 217 - 255 (spins) |
| 13 | Color Wheel 2 | 0 - 216 / 217 - 255 (spins) |
| 14 | Strobe | 0 (open) - 255 (max) |
| 15 | Aperture Wheel | 0 - 216 / 217 - 255 (spins) |
| 16 | Focus Time | 0 - 255 |
| 17 | Color Time | 0 - 255 |
| 18 | Beam Time | 0 - 255 |
| 19 | Control Channel | 0 - 255 |

Control Channel Functions

Control channel functions allow special actions such as reset, lamp on/off and partial recalibration. These must be executed with zero time transition or with timing disabled. Discrete values must be used; not manual controls such as faders or encoders (see chart below for values).



WARNING: Light Beam Projects Intense Heat

Do not illuminate objects within 3.5 m (11.5 feet) of the VL3500™ Wash Luminaire. Objects within this range can scorch, melt, or ignite from the heat projected by the light beam.

Reset - resets all luminaire mechanisms.

Lamp On or Lamp Off - switches lamp on or off.

Partial Recalibration - resets only the target mechanism (color, zoom, etc.) without affecting others.

Table 3-2: Control Channel Functions

| Control Channel Function | Control Channel Value | Control Channel Value | |
|-------------------------------|-----------------------|-----------------------|--------------|
| | % Value | DMX Value | |
| | | For 3 Secs or Greater | After 3 Secs |
| Zoom Normal | 24 - 25 | 60 - 65 | 0 |
| Zoom Studio | 27 - 29 | 70 - 75 | 0 |
| Luminaire Reset | 32 - 33 | 81 - 87 | 0 |
| Lamp Off | 65 - 67 | 165 - 171 | 0 |
| Lamp On | 98 - 100 | 249 - 255 | 0 |
| Color Recalibration | 39-40 | 100 - 104 | 0 |
| Zoom/VARI*BRITE Recalibration | 49-51 | 126 - 130 | 0 |
| Dimmer/Strobe Recalibration | 54-56 | 138 - 142 | 0 |
| 1500W lamp runs at 900W | 69-72 | 176 - 184 | 0 |
| 1500W lamp runs at 1200W | 74-76 | 189 - 194 | 0 |
| 1500W lamp runs at 1500W | 78-80 | 199 - 204 | 0 |

To use control channel functions:

- Step 1. Select an action to be sent.
- Step 2. Set control channel value for desired action (for example, 84 for reset). Hold value for at least 3 seconds.
- Step 3. Set control channel value to zero. (This must occur without any scaling values. Action will be voided if other values are detected between action value and zero.)

Note: A numerical keypad is required for sending values. An encoder or fader does not allow for a quick value change, which is required to effect the control functions. However, the encoders on some consoles include discreet value capability.

DMX Mapping

Color Control

The luminaire's color system is composed of a color mixing mechanism and a fixed color wheel. The follow sections describe these components.

Color Mixing

The color mixing mechanism is made up of four graduated color disks: cyan, yellow, magenta and CTO (color temperature orange). These disks provide full-spectrum color crossfades from pastel to saturated color.

Table 3-3: DMX Map for Cyan, Yellow, Magenta and CTO Colors

| % Value | DMX Value | Action |
|---------|-----------|-----------------|
| 0 | 0 | Open |
| 100 | 255 | Full Saturation |

Fixed Color Wheel 1

The fixed color wheels offer timed changes, half and full frame positions, and various spin rates in either direction. The wheel contains six positions, one of which is open. The following illustration shows the standard positions and color configuration:

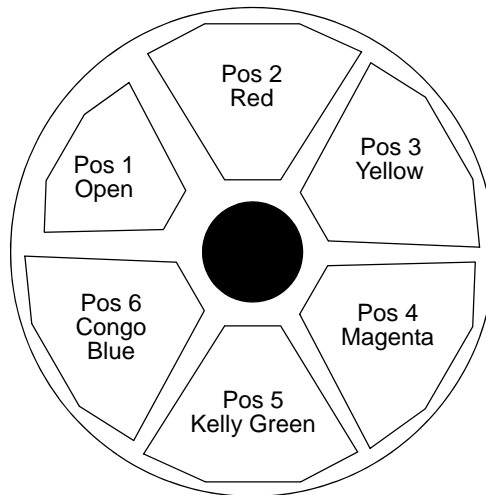


Figure 3-1: Fixed Color Wheel 1 Positions

Table 3-4: Color Wheel 1 Standard Configuration Chart

| Position | Color Filter | Part Number |
|----------|--------------|--------------|
| 1 | Open | |
| 2 | Red | 41.9686.0480 |
| 3 | Yellow | 41.9686.0481 |
| 4 | Magenta | 41.9686.0492 |
| 5 | Kelly Green | 41.9686.0473 |
| 6 | Congo Blue | 41.9686.0474 |

Fixed Color Wheel 2

The wheel contains six positions, one of which is open. The following illustration shows the standard positions and color configuration:

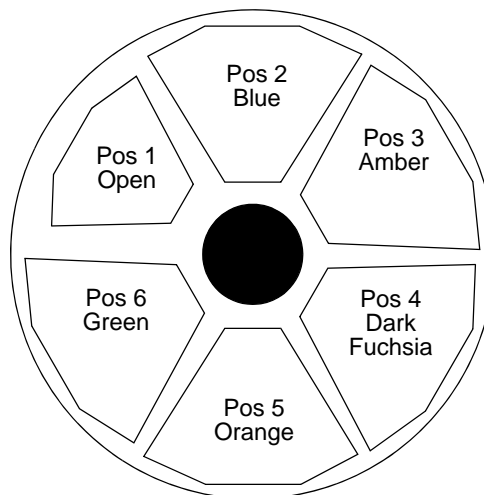


Figure 3-2: Fixed Color Wheel 2 Positions

Table 3-5: Color Wheel 2 Standard Configuration Chart

| Position | Color Filter | Part Number |
|----------|--------------|--------------|
| 1 | Open | |
| 2 | Blue | 41.9686.0495 |
| 3 | Amber | 41.9686.0486 |
| 4 | Dark Fuchsia | 41.9686.0477 |
| 5 | Orange | 41.9686.0498 |
| 6 | Green | 41.9686.0479 |

Table 3-6: DMX Map for Fixed Color Wheels 1 and 2

| Position | DMX Value | Action |
|----------|-----------|--------|
| 1 | 0 | Open |
| 1.5 | | Half |
| 2 | 37 | Center |
| 2.5 | | Half |
| 3 | 72 | Center |
| 3.5 | | Half |
| 4 | 107 | Center |
| 4.5 | | Half |
| 5 | 143 | Center |
| 5.5 | | Half |
| 6 | 179 | Center |
| 6.5 | | Half |

Beam Control

Strobe

Table 3-7: DMX Map for Strobe

| % Value | DMX Value | Action |
|---------|-----------|-------------|
| 0 | 0-2 | Open |
| 1 | 3-5 | Closed |
| 2 | 6-7 | Slow Random |
| 3 | 8-10 | Med Random |
| 4 | 11-12 | Fast Random |
| 5-100 | 13-255 | Speed Range |

Aperture

Table 3-8: DMX Map for Aperture

| Description | DMX Value | Action |
|-------------|-----------|--------|
| 52 mm | 0 - 43 | Open |
| 40 mm | 44 - 86 | Open |
| 35 mm | 87 - 129 | Open |
| 30 mm | 130 - 172 | Open |
| 25 mm | 173 - 216 | Open |
| | 217-255 | Spins |

Luminaire Timing

Timing Channel Information

Timing channel control improves the timed moves of certain groups of parameters. We provide up to four timing channels, one for focus (Pan and Tilt), one for color parameters, one for beam parameters, and one for gobo wheel position (spot version only).

Types of timing control:

- **Timing Control Channel:** the luminaire uses its timing channel value to calculate a smooth continuous movement for a given time and transition.
- **Console Timing:** the console calculates the time duration between the DMX increments to be sent for a given time and transition.

Guidelines:

- Timing channels support time values of up to six minutes.
- To use a timing channel instead of console timing, it is necessary to set the timing channel to the desired value and set cue and/or parameter time to zero. A combination of time controls can produce unexpected results.
- The default value setting in the profile should be 255 (proportional control) to allow smooth movement when using console timing.
- The timing channel data should change as a snap. A zero value will give the fastest move, however, without any smoothing this can appear "steppy" in console timed moves.

Note: Some parameters have been excluded from the timing channels. Wheel spin rate changes are not affected by timing channels.

Table 3-9: VL3500 Channel Function / Timing Channel Relationship

| Channel Function | Timing Channel | | |
|------------------------|----------------|------------|-----------|
| | Focus Time | Color Time | Beam Time |
| Pan (Hi Byte/Lo Byte) | ◆ | | |
| Tilt (Hi Byte/Lo Byte) | ◆ | | |
| Blue | | ◆ | |
| Amber | | ◆ | |
| Magenta | | ◆ | |
| CTO | | ◆ | |
| Color Wheels | | ◆ | |
| VBrite/Zoom | | | ◆ |

A timing value of zero is full speed. A time value of 100% (or 255 in DMX) enables the associated parameter(s) to follow cue fade time (console time) rather than the timing channel.

Note: The particular storing syntax for your console, as well as instructions on how to write part cues, can be found in the operation manual for that console.

To use these channels, you must:

- Step 1. Create the cue, including color, gobo, edge and diffusion as required.
- Step 2. Decide which fixtures and which parameter groups will use timing channels.
- Step 3. Assign a value to the particular timing channel(s) you wish to use (for timing information, see chart on next page).
- Step 4. Set console timing (or cue fade time) for parameters and timing channels to zero seconds.
- Step 5. Store cue.

Note: Avoid changing timing channel values in a fading cue. This can cause unexpected behavior in the luminaire as the timing channel value is updated over time. Timing channel values and the final destination of the parameters affected by the timing channel should always be sent in a zero count.

Timing channels can be set in either % or 0-255 (DMX) modes, with the following values assigned:

Table 3-10: Timing Channels Map

| % Value | DMX | = Seconds |
|---------|-----|------------|
| | 0 | Full Speed |
| | 1 | 0.2 |
| | 2 | 0.4 |
| 1 | 3 | 0.6 |
| | 4 | 0.8 |
| 2 | 5 | 1 |
| | 6 | 1.2 |
| | 7 | 1.4 |
| 3 | 8 | 1.6 |
| | 9 | 1.8 |
| 4 | 10 | 2 |
| | 11 | 2.2 |
| | 12 | 2.4 |
| 5 | 13 | 2.6 |
| | 14 | 2.8 |
| 6 | 15 | 3 |
| | 16 | 3.2 |
| | 17 | 3.4 |
| 7 | 18 | 3.6 |
| | 19 | 3.8 |
| 8 | 20 | 4 |
| | 21 | 4.2 |
| | 22 | 4.4 |
| 9 | 23 | 4.6 |
| | 24 | 4.8 |
| 10 | 25 | 5 |
| | 26 | 5.2 |
| | 27 | 5.4 |
| 11 | 28 | 5.6 |
| | 29 | 5.8 |
| | 30 | 6 |
| 12 | 31 | 6.2 |
| | 32 | 6.4 |
| 13 | 33 | 6.6 |
| | 34 | 6.8 |
| | 35 | 7.0 |
| 14 | 36 | 7.2 |
| | 37 | 7.4 |
| 15 | 38 | 7.6 |

Table 3-10: Timing Channels Map (Continued)

| % Value | DMX | = Seconds |
|----------------|------------|------------------|
| | 39 | 7.8 |
| | 40 | 8 |
| 16 | 41 | 8.2 |
| | 42 | 8.4 |
| 17 | 43 | 8.6 |
| | 44 | 8.8 |
| | 45 | 9 |
| 18 | 46 | 9.2 |
| | 47 | 9.4 |
| 19 | 48 | 9.6 |
| | 49 | 9.8 |
| | 50 | 10 |
| 20 | 51 | 10.2 |
| | 52 | 10.4 |
| | 53 | 10.6 |
| 21 | 54 | 11 |
| | 55 | 11 |
| 22 | 56 | 12 |
| | 57 | 12 |
| | 58 | 13 |
| 23 | 59 | 13 |
| | 60 | 14 |
| 24 | 61 | 14 |
| | 62 | 14 |
| | 63 | 15 |
| 25 | 64 | 15 |
| | 65 | 16 |
| 26 | 66 | 16 |
| | 67 | 16 |
| | 68 | 17 |
| 27 | 69 | 17 |
| | 70 | 18 |
| 28 | 71 | 18 |
| | 72 | 18 |
| | 73 | 19 |
| 29 | 74 | 19 |
| | 75 | 20 |
| 30 | 76 | 20 |
| | 77 | 20 |
| | 78 | 21 |
| 31 | 79 | 21 |
| | 80 | 21 |

Table 3-10: Timing Channels Map (Continued)

| % Value | DMX | = Seconds |
|---------|-----|-----------|
| | 81 | 22 |
| 32 | 82 | 22 |
| | 83 | 23 |
| 33 | 84 | 23 |
| | 85 | 23 |
| | 86 | 24 |
| 34 | 87 | 24 |
| | 88 | 25 |
| 35 | 89 | 25 |
| | 90 | 25 |
| | 91 | 26 |
| 36 | 92 | 26 |
| | 93 | 27 |
| 37 | 94 | 27 |
| | 95 | 27 |
| | 96 | 28 |
| 38 | 97 | 28 |
| | 98 | 29 |
| 39 | 99 | 29 |
| | 100 | 29 |
| | 101 | 30 |
| 40 | 102 | 30 |
| | 103 | 30 |
| | 104 | 31 |
| 41 | 105 | 31 |
| | 106 | 32 |
| 42 | 107 | 32 |
| | 108 | 32 |
| | 109 | 33 |
| 43 | 110 | 33 |
| | 111 | 34 |
| 44 | 112 | 34 |
| | 113 | 34 |
| | 114 | 35 |
| 45 | 115 | 35 |
| | 116 | 36 |
| 46 | 117 | 36 |
| | 118 | 36 |
| | 119 | 37 |
| 47 | 120 | 37 |
| | 121 | 38 |
| 48 | 122 | 38 |

Table 3-10: Timing Channels Map (Continued)

| % Value | DMX | = Seconds |
|----------------|------------|------------------|
| | 123 | 38 |
| | 124 | 39 |
| 49 | 125 | 39 |
| | 126 | 39 |
| | 127 | 40 |
| 50 | 128 | 40 |
| | 129 | 41 |
| 51 | 130 | 41 |
| | 131 | 41 |
| | 132 | 42 |
| 52 | 133 | 42 |
| | 134 | 43 |
| 53 | 135 | 43 |
| | 136 | 43 |
| | 137 | 44 |
| 54 | 138 | 44 |
| | 139 | 45 |
| 55 | 140 | 45 |
| | 141 | 45 |
| | 142 | 46 |
| 56 | 143 | 46 |
| | 144 | 47 |
| 57 | 145 | 47 |
| | 146 | 47 |
| | 147 | 48 |
| 58 | 148 | 48 |
| | 149 | 49 |
| 59 | 150 | 49 |
| | 151 | 49 |
| | 152 | 50 |
| 60 | 153 | 50 |
| | 154 | 50 |
| | 155 | 51 |
| 61 | 156 | 51 |
| | 157 | 52 |
| 62 | 158 | 52 |
| | 159 | 52 |
| | 160 | 53 |
| 63 | 161 | 53 |
| | 162 | 54 |
| 64 | 163 | 54 |
| | 164 | 54 |

Table 3-10: Timing Channels Map (Continued)

| % Value | DMX | = Seconds |
|---------|-----|-----------|
| | 165 | 55 |
| 65 | 166 | 55 |
| | 167 | 56 |
| 66 | 168 | 56 |
| | 169 | 56 |
| | 170 | 57 |
| 67 | 171 | 57 |
| | 172 | 58 |
| 68 | 173 | 58 |
| | 174 | 58 |
| | 175 | 59 |
| 69 | 176 | 59 |
| | 177 | 59 |
| | 178 | 60 |
| 70 | 179 | 60 |
| | 180 | 65 |
| 71 | 181 | 65 |
| | 182 | 65 |
| | 183 | 70 |
| 72 | 184 | 70 |
| | 185 | 75 |
| 73 | 186 | 75 |
| | 187 | 75 |
| | 188 | 80 |
| 74 | 189 | 80 |
| | 190 | 85 |
| 75 | 191 | 85 |
| | 192 | 85 |
| | 193 | 90 |
| 76 | 194 | 90 |
| | 195 | 95 |
| 77 | 196 | 95 |
| | 197 | 95 |
| | 198 | 100 |
| 78 | 199 | 100 |
| | 200 | 110 |
| 79 | 201 | 110 |
| | 202 | 110 |
| | 203 | 120 |
| 80 | 204 | 120 |
| | 205 | 120 |
| 81 | 206 | 130 |

Table 3-10: Timing Channels Map (Continued)

| % Value | DMX | = Seconds |
|----------------|------------|------------------|
| | 207 | 130 |
| | 208 | 140 |
| 82 | 209 | 140 |
| | 210 | 140 |
| | 211 | 150 |
| 83 | 212 | 150 |
| | 213 | 160 |
| 84 | 214 | 160 |
| | 215 | 160 |
| | 216 | 170 |
| 85 | 217 | 170 |
| | 218 | 180 |
| 86 | 219 | 180 |
| | 220 | 180 |
| | 221 | 190 |
| 87 | 222 | 190 |
| | 223 | 200 |
| 88 | 224 | 200 |
| | 225 | 200 |
| | 226 | 210 |
| 89 | 227 | 210 |
| | 228 | 210 |
| | 229 | 220 |
| 90 | 230 | 220 |
| | 231 | 230 |
| 91 | 232 | 230 |
| | 233 | 230 |
| | 234 | 240 |
| 92 | 235 | 240 |
| | 236 | 250 |
| 93 | 237 | 250 |
| | 238 | 250 |
| | 239 | 260 |
| 94 | 240 | 260 |
| | 241 | 270 |
| 95 | 242 | 270 |
| | 243 | 270 |
| | 244 | 280 |
| 96 | 245 | 280 |
| | 246 | 290 |
| 97 | 247 | 290 |
| | 248 | 290 |

Table 3-10: Timing Channels Map (Continued)

| % Value | DMX | = Seconds |
|---------|-----|------------------|
| | 249 | 300 |
| 98 | 250 | 300 |
| | 251 | 310 |
| 99 | 252 | 310 |
| | 253 | 310 |
| | 254 | 310 |
| 100 | 255 | Follows Cue Data |

Updating Software

Reprogramming Luminaires

You can upgrade Vari-Lite luminaire operating software using either of the following methods:

1. [Serial-port Download](#)—for desktop computers and laptops equipped with serial ports
2. [USB Download](#)—for desktop computers and newer laptops equipped with USB 2.0 ports

1. Serial-port Download

Components Overview

Serial-port downloads require:

- PC with a serial port
- *VLDownload.exe* (PC software)
- .bin files (luminaire software)
- VARI**LITE* Luminaire Programming Kit (28.9661.0054)

Computer Requirements

- PC running Windows 95/98, Windows NT (4.0 or higher), Windows 2000, or Windows XP. (Program is not compatible with Macintosh computers.)
- Serial communication port. (RS-232 only, USB not supported.)

VL Download Program

The *VLDownload.exe* program allows you to transfer new versions of the operating software (.bin files) to the luminaires via the PC. The *VLDownload.exe* and current .bin files are available from the Product Downloads page at www.vari-lite.com. Instructions for installing the program on your PC are also available on the Product Downloads page.

Luminaire Programming Kit

The luminaire programming kit allows you to connect your PC to the luminaire chain in order to update software.

Luminaire Programming Kit (28.9661.0054) components:

- 6-Ft. Serial Straight Thru DB9M-F Cable (46.6033.0006)
- RS-232 to RS-485 Interface Converter (46.6036.0001)
- 6-Ft. RJ45 to 5-Pin Female XLR Cable (25.9661.0055)

Reprogramming Procedure

Note: When they are data linked together, up to 32 luminaires can be programmed at the same time. Refer to “[Connecting Data and Power](#)” on page 15. (Programming more than 32 luminaires requires programming in batches of 32 or less.)

To update luminaire software:

- Step 1. From Product Downloads page at www.vari-lite.com, download and install the *VLDownload.exe* program and required .bin files onto your PC. Follow the instructions on the web site.
- Step 2. Assemble Luminaire Programming Kit components by connecting *Serial Straight Thru Cable* and *RJ45-to-XLR cable* to Interface Converter.

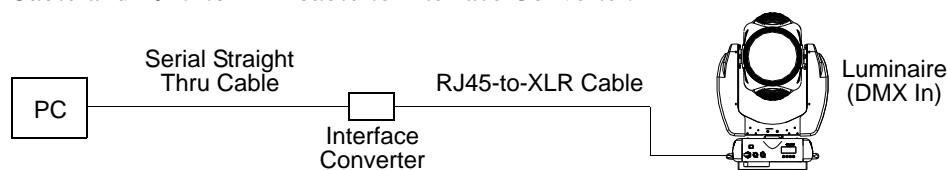


Figure 3-3: Hardware Setup

- Step 3. Connect *Serial Straight Thru cable* to serial Comm Port of PC and connect *RJ45-to-XLR cable* to DMX In connector of luminaire.
- Step 4. Apply power to PC and luminaire(s).
- Step 5. Run *VLDownload.exe* program by selecting from Start menu Programs list or by selecting from C:\ProgramFiles\Vari-Lite\VLDownload Program directory. (Luminaire Software Download window will open.)
- Step 6. At Select Comm Port section of window (refer to [Figure 3-4](#) on next page), select serial Comm Port (Comm Port 1, Comm Port 2, Comm Port 3, or Comm Port 4) where *Serial Straight Thru Cable* is connected.

Note: DMX data must be disconnected before downloading software to luminaires. (Do not merge with DMX signal.)

- Step 7. At Select Software to Download section of window, select required luminaire software version to download by clicking its button or select Download All. (Software version is identified by the date and time: MM/DD/YY and HH:MM.) The buttons function as follows:
- VL3000 button downloads the software to all VL3000 luminaires.
- Download All button is the equivalent of executing all of the specific software version buttons shown in the window (if applicable). They will be executed one at a time in the order they appear in the window. This button can be used when any combination of VARI*LTE luminaires are connected to the PC.
- Step 8. Download will proceed. Once download is complete, luminaire will automatically recalibrate. Once recalibration is complete, luminaire is ready for operation with its new software version.

Step 9. Click Close to exit.

Note: The History section of the window shows what specific types of luminaire software have been downloaded since the beginning of the session (window will reset once the program is closed and re-opened).

Note: Version dates shown in this graphic are for illustration purposes only and may not correspond to the version you are downloading.

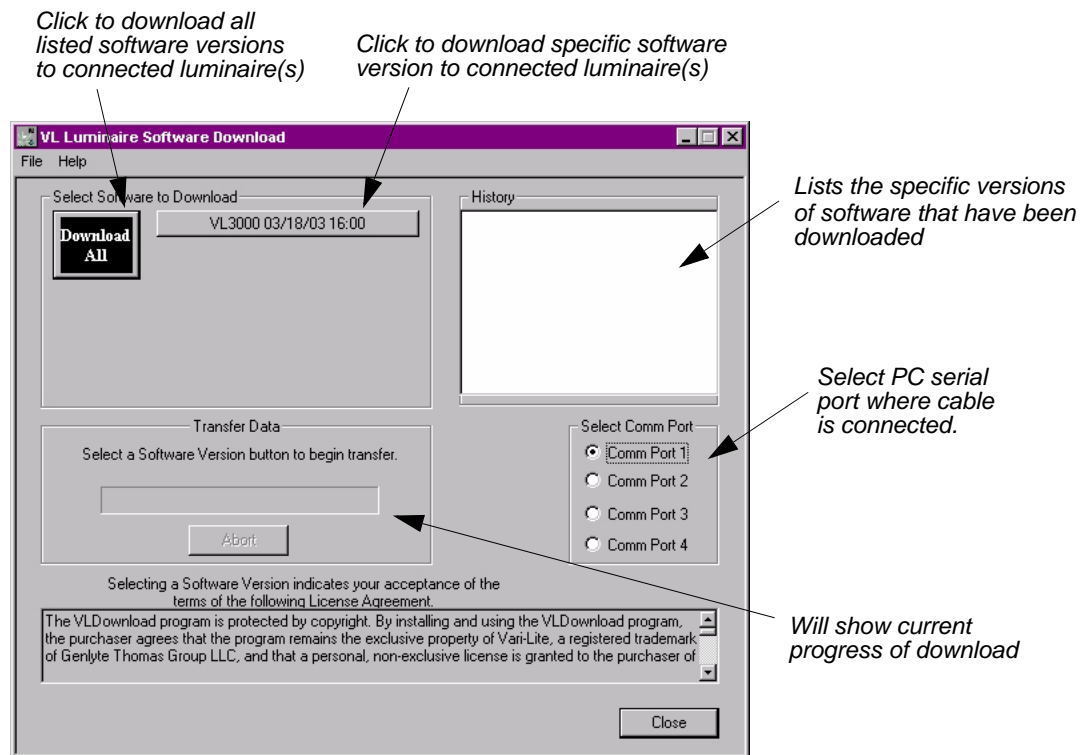


Figure 3-4: VL Download Program Window

Verify software version at luminaire:

- Step 1. At Menu Display, press [Menu].
- Step 2. Press [Up] / [Down] arrows until Fixture appears. Press [Enter].
- Step 3. Press [Up] / [Down] arrows until Version appears. Press [Enter].

The first half of the version will be displayed as a date (MM.DD.YY). For example, 03.18.03 (March 18, 2003).

Press [Up] / [Down] arrows to display second half of version. This will be displayed as a time (HH:MM). For example, 16:00

2. USB Download

To download files with a PC equipped with a Universal Serial Bus (USB) port, you need the VARI*LITE USB Luminaire Programming Kit (28.8500.0054).

Kit Components

The VARI*LITE USB Luminaire Programming Kit (28.8500.0054) includes:

- VARI*LITE USB Upload Cable (25.9600.0001)
- USB Luminaire Programming Kit CD (87.8500.0002)
- Instruction Sheet (02.8500.0100)
- VARI*LITE carry bag (07.5044.0005)

Computer Requirements for the USB Luminaire Programming Kit

- PC running Windows 98, 2000, XP, or Vista. Although the USB Luminaire Programming kit software is not directly compatible with Macintosh computers, it does run with some Windows emulators.
- In addition to Windows, your computer must be running IE 5.01 or later, and Microsoft .NET Framework Version 2.0, which you can download from <http://www.microsoft.com/downloads>
- an available USB 2.0 port on the PC

USB VLDownloader PC Program and .bin Luminaire Files

The USB VLDownloader program and current .bin files are available from the Product Downloads page at www.vari-lite.com. Instructions for installing the USB VLDownloader program on your PC are also available on the Product Downloads page. Use the USB VLDownloader program to transfer updated versions of the luminaire operating software (.bin files) from your PC to the luminaires.

Transferring Software From Luminaire to Luminaire

It is possible to transfer specific software versions between luminaires. As in the case of installing new software versions, multiple luminaires can be programmed at the same time when they are data linked together (refer to “[Connecting Data and Power](#)” on page 15), however, only a maximum of 32 luminaires can be updated at once.

Hardware Requirements

Data cables used in this process must have two twisted pairs and a shield. It is also recommended that cables meet all other USITT DMX specification requirements. Refer to “[Data Cables](#)” on page 9.

A termination connector is used in this process. Refer to [page 10](#) for more information regarding the construction of this connector.

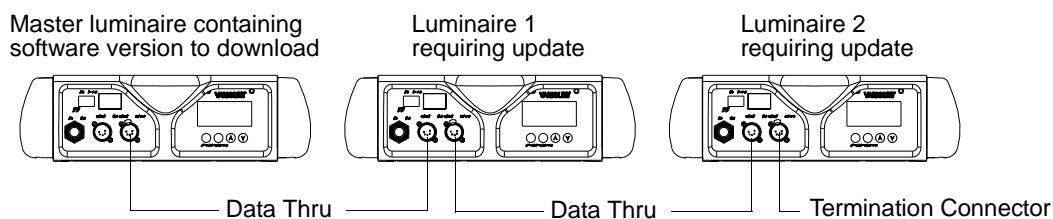


Figure 3-5: Software Transfer Setup

Transfer Procedure

This procedure is used to transfer software versions between luminaires.

- Step 1. At last luminaire, install male termination connector into DATA THRU XLR connector.
- Step 2. At master luminaire (first in chain) Menu Display, press [Menu].
- Step 3. Press [Up] / [Down] arrows until **Fixture** appears.
- Step 4. Press [Up] / [Down] arrows until **Download** appears. Press [Enter].
- Step 5. **OK?** will be displayed. Press [Enter] to accept.
- Step 6. Download proceeds. (Download takes 4-5 seconds.) The number of blocks displayed is less in a luminaire-to-luminaire download than in a PC-to-luminaire download for the same software version.
- Step 7. When download is complete, luminaire automatically recalibrates. When recalibration is complete, luminaire is ready for operation with its new software version.

Verify software version at luminaire:

- Step 1. At Menu Display, press [Menu].
- Step 2. Press [Up] / [Down] arrows until **Fixture** appears. Press [Enter].
- Step 3. Press [Up] / [Down] arrows until **Version** appears. Press [Enter].

The first half of the version will be displayed as a date (MM.DD.YY). For example, 03.18.03 (March 18, 2003).

Press [Up] / [Down] arrows to display second half of version. This will be displayed as a time (HH:MM). For example, 16:00

Notes



CHAPTER 4.

Menu System

This chapter contains instructions for operating the luminaire using the Menu Display feature.

- **Menu Operation**
- **Menu Functions**
- **Self-Tests**

Menu Operation

What Is the Menu System?

The menu system is a programmable set of commands used to configure, address, operate, and test the luminaire. The menu system is controlled at the Menu Display available at the enclosure input panel.

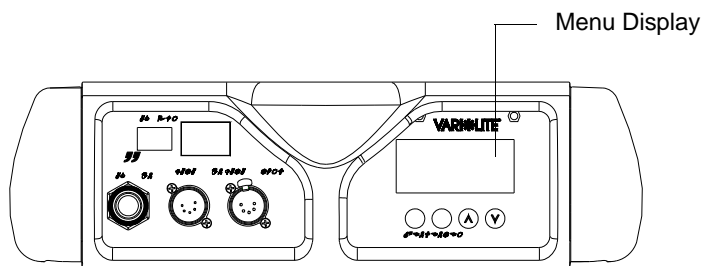


Figure 4-1: Menu Display Location

Controls Operation

The menu system is controlled by four buttons. These buttons function as follows:

[Menu] button. Displays the menu, or if at first level, the current address.

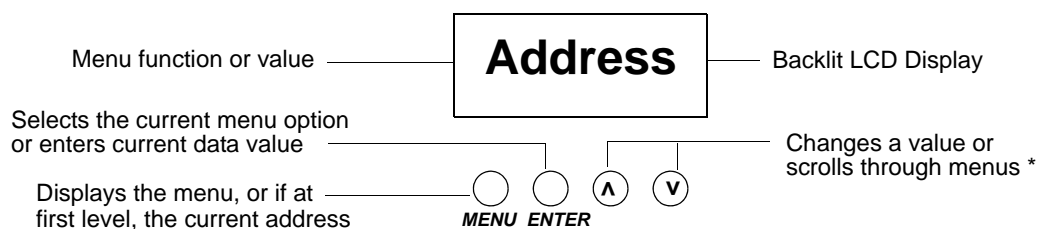
[Enter] button. Selects the current menu option or stores current data value.



[Up] arrow. Scrolls menu options upward or increases current data value. *



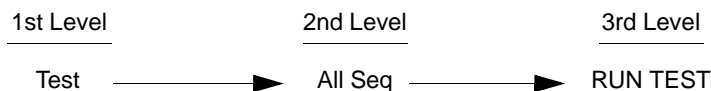
[Down] arrow. Scrolls menu options downward or decreases current data value. *



* Arrows can be set to work in the hanging orientation. See **Disp Tilt** in the [“Menu System Function Chart” on page 47](#). See also [“Shortcuts” on page 45](#).

To enter the menu system, first press [Menu]. The functions displayed will be 1st level functions. Scroll through the 1st level functions by pressing [Up] / [Down] arrows. Once the desired function appears in the display, press [Enter]. You are now at the 2nd level. Once again, press the [Up] / [Down] arrows to scroll through 2nd level functions. Press [Enter] to access 3rd level functions and so forth. When the highest level for the function is reached, [Up] / [Down] arrows can be pressed to enter a value or select a toggle activation such as On/Off. Press [Enter] to store the value or select an action.

For example:



Default State

The menu display's default state during normal operation is to display the DMX address. After 10 seconds of inactivity at the display, it will change to the default state.

After longer periods of inactivity, the menu display will switch to its off state. The default state for this feature is 5 minutes, however, different time lengths can also be programmed.

To program a different time length for menu off feature:

- Step 1. Press [Menu].
- Step 2. Press [Up] / [Down] arrows until Config (Configuration) appears. Press [Enter].
- Step 3. Press [Up] / [Down] arrows to access Display. Press [Enter].
- Step 4. Press [Up] / [Down] arrows to select either 30 Sec (30 seconds), 5 Min (5 minutes), 10 Min (10 minutes), or ON (on indefinitely). Press [Enter] to set.

Shortcuts



WARNING: Light Beam Projects Intense Heat

Do not illuminate objects within 3.5 m (11.5 feet) of the VL3500™ Wash Luminaire. Objects within this range can scorch, melt, or ignite from the heat projected by the light beam.

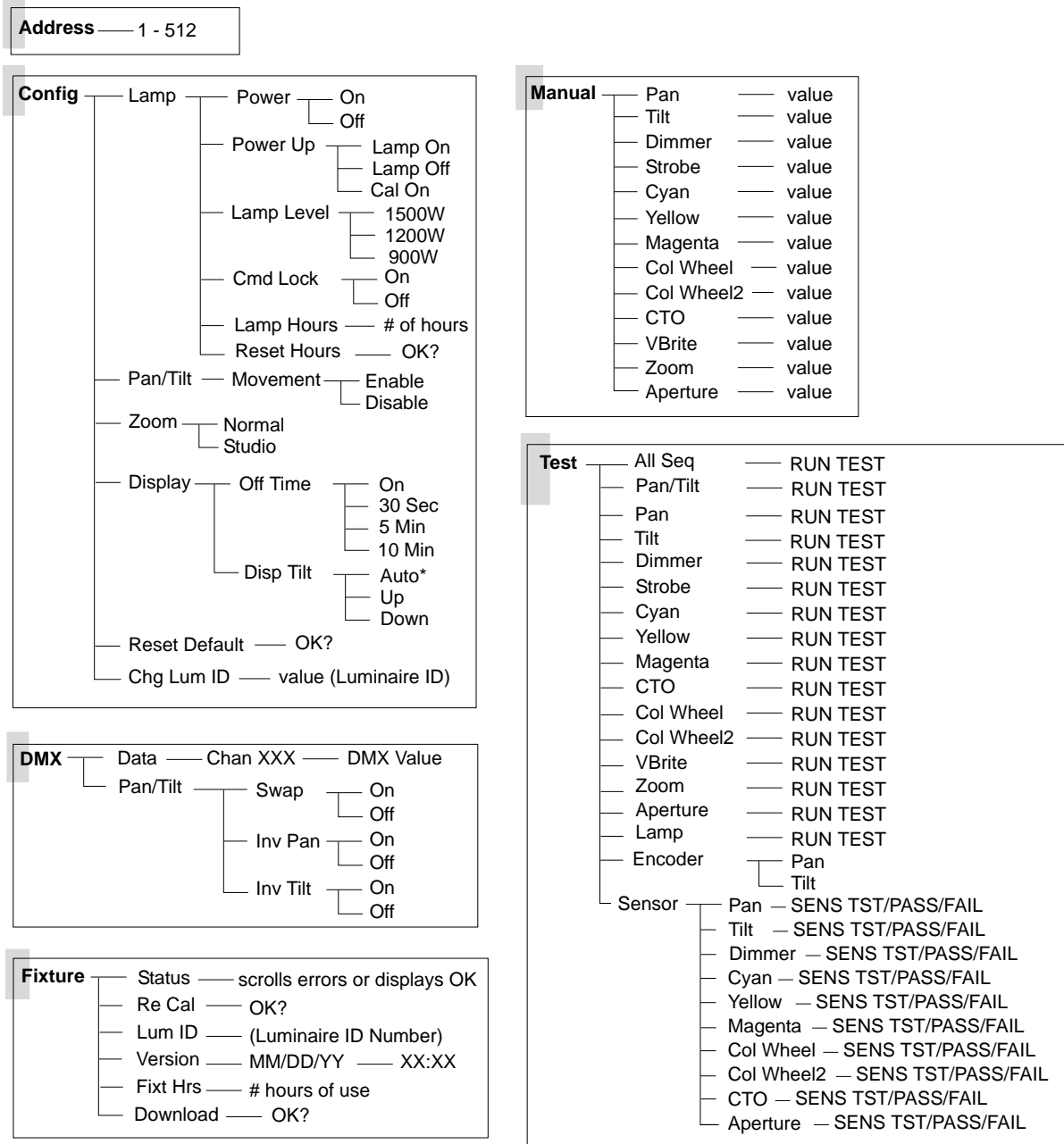
A few button combinations are provided as shortcuts for frequently used menu functions. These shortcuts are as follows:

- Pressing [Enter] and [Up] at the same time = Lamp On
- Pressing [Enter] and [Down] at the same time = Lamp Off
- Pressing [Up] and [Down] at the same time inverts or reverts the menu display
- Pressing [Menu] and [Up] at the same time = Recalibrate
- Pressing [Menu] at Power up interrupts calibration. See [“Program Starting Address Without Calibrating Luminaire” on page 17](#) for more information.

Menu Functions

Menu System Overview

The following is a graphic representation of the entire VL3500 Wash luminaire menu system.



Fixture

- Status — scrolls errors or displays OK
- Re Cal — OK?
- Lum ID — (Luminaire ID Number)
- Version — MM/DD/YY — XX:XX
- Fixt Hrs — # hours of use
- Download — OK?

* Only for displays manufactured before 01 July 2006.

Menu System Function Chart

The following is a detailed look at the internal menu system.

Table 4-1: VL3500 Wash Menu System Chart

| 1st Level | 2nd Level | 3rd Level | 4th Level | 5thLevel |
|--------------------------------|---------------------------------------|---|---|----------|
| Address | XXX value 1 thru 512 | | | |
| Config Configuration | LAMP Lamp Options | Power Lamp Power | ON (default) | |
| | | | OFF | |
| | | Power UP Lamp Power-up State | Lamp ON Lamp On (default) | |
| | | | Lamp OFF Lamp Off | |
| | | | Cal ON Lamp On After Calibration | |
| | | | | |
| | | Lamp Level Lamp Power Level | 1500W | |
| | | | 1200W | |
| | | | 900W | |
| | | Cmd Lock Prevents Remote Lamp Power-Level Changes From Console | ON | |
| | | | Off | |
| | | LampHour Lamp Hours Used | XXXX Cumulative # of Lamp Hours | |
| | | Reset Hours Resets Lamp Hours | OK? | |
| | Pan/Tilt Pan and Tilt | Movement Position Recovery | Enable Enable | |
| | | | Disable Disable | |
| | Zoom Zoom lens | Normal | | |
| | | Studio Quiet Mode | | |
| | Display Display Illumination | Off Time | ON On indefinitely | |
| | | | 30 Sec Off in 30 seconds | |
| | | | 5 Min Off in 5 minutes | |
| | | | 10 Min Off in 10 minutes | |
| | | Disp Tilt | Auto* | |
| | | | Up | |
| | | | Down | |
| | Reset Default | OK? | | |
| | Chg Lum ID Change Luminaire ID | XXXX Value (Luminaire ID) | | |
| DMX DMX Data | DATA * | Chan XXX DMX Channel | XXXX Value 0 - 255 | |
| | Pan/Tilt Pan and Tilt Options | Swap Swap Pan & Tilt | ON | |
| | | | OFF | |
| | | Inv Pan Invert Pan | ON | |
| | | | OFF | |
| | | Inv Tilt Invert Tilt | ON | |
| | | | OFF | |

* Only for displays manufactured before 01 July 2006.

Table 4-1: VL3500 Wash Menu System Chart

| 1st Level | 2nd Level | 3rd Level | 4th Level | 5thLevel |
|--|---|--|-----------------------|-----------------|
| Fixture | Status <i>Status/Error Display</i> | <i>Scrolls error messages or displays OK</i> | | |
| | Re Cal <i>Recalibrate</i> | OK? | | |
| | Lum ID <i>Luminaire ID</i> | XXXXXXXX <i>Luminaire ID Number</i> | | |
| | Version <i>Version</i> | MM/DD/YY (Page 1) | HH:MM (Page 2) | |
| | Fixt Hrs <i>Fixture Hours</i> | XXXX # <i>Number of Fixture Hours</i> | | |
| | Download <i>Download Software</i> | OK? | | |
| Manual <i>Manual Commands (Disabled when DMX Present.)</i> | Pan * | XXXX <i>DMX Value</i> | | |
| | Tilt * | XXXX <i>DMX Value</i> | | |
| | Dimmer | XXX <i>DMX Value</i> | | |
| | Strobe | XXX <i>DMX Value</i> | | |
| | Cyan | XXX <i>DMX Value</i> | | |
| | Yellow | XXX <i>DMX Value</i> | | |
| | Magenta | XXX <i>DMX Value</i> | | |
| | Col Wheel <i>Color Wheel 1</i> | XXX <i>DMX Value</i> | | |
| | Col Wheel2 <i>Color Wheel 2</i> | XXX <i>DMX Value</i> | | |
| | CTO <i>Color Temperature Orange</i> | XXX <i>DMX Value</i> | | |
| | VBrite <i>VARI*<i>BRITE</i> lens</i> | XXX <i>DMX Value</i> | | |
| | Zoom | XXX <i>DMX Value</i> | | |
| | Aperture | XXX <i>DMX Value</i> | | |

Table 4-1: VL3500 Wash Menu System Chart

| 1st Level | 2nd Level | 3rd Level | 4th Level | 5thLevel |
|-----------|---|--------------------------------------|----------------------------|-----------|
| Test | All SEQ <i>Test all mechanisms in order, X steps.</i> | RUN TEST <i>Run-Test in Progress</i> | Press [Menu] to stop tests | |
| | Pan/Tilt | RUN TEST <i>Run-Test in Progress</i> | | |
| | Pan | RUN TEST <i>Run-Test in Progress</i> | | |
| | Tilt | RUN TEST <i>Run-Test in Progress</i> | | |
| | Dimmer | RUN TEST <i>Run-Test in Progress</i> | | |
| | Strobe | RUN TEST <i>Run-Test in Progress</i> | | |
| | Cyan | RUN TEST <i>Run-Test in Progress</i> | | |
| | Yellow | RUN TEST <i>Run-Test in Progress</i> | | |
| | Magenta | RUN TEST <i>Run-Test in Progress</i> | | |
| | CTO | RUN TEST <i>Run-Test in Progress</i> | | |
| | Col Wheel | RUN TEST <i>Run-Test in Progress</i> | | |
| | Col Wheel2 | RUN TEST <i>Run-Test in Progress</i> | | |
| | VBrite | RUN TEST <i>Run-Test in Progress</i> | | |
| | Zoom | RUN TEST <i>Run-Test in Progress</i> | | |
| | Aperture | RUN TEST <i>Run-Test in Progress</i> | | |
| | Lamp <i>Disables Pan/Tilt and Sets Intensity to Full.</i> | RUN TEST <i>Run-Test in Progress</i> | | |
| | Encoder | Pan | XXXX Value | |
| | | Tilt | XXXX Value | |
| | Sensor | Pan | SENS TST Sensor | PASS/FAIL |
| | | Tilt | SENS TST Sensor | PASS/FAIL |
| | | Dimmer | SENS TST Sensor | PASS/FAIL |
| | | Cyan | SENS TST Sensor | PASS/FAIL |
| | | Yellow | SENS TST Sensor | PASS/FAIL |
| | | Magenta | SENS TST Sensor | PASS/FAIL |
| | | Col Wheel Color Wheel 1 | SENS TST Sensor | PASS/FAIL |
| | | Col Wheel2 Color Wheel 2 | SENS TST Sensor | PASS/FAIL |
| | | CTO Color Temperature Orange | SENS TST Sensor | PASS/FAIL |
| | | Aperture | SENS TST Sensor | PASS/FAIL |

* For 16-bit parameters, the data displayed will be scaled to a range of 0-4095.

Menu Function Definitions

For easy reference, each possible menu item is listed alphabetically in the first column by its display abbreviation. The second column follows with a definition of the abbreviation and then a third column provides an explanation of its purpose and function.

Table 4-2: Menu Function Definitions

| Display | Definition | Purpose |
|----------------|---|--|
| 10 Min | 10 Minutes | Sets Menu Display to automatically shut off after 10 minutes of non-use. |
| 30 Sec | 30 Seconds | Sets Menu Display to automatically shut off after 30 seconds of non-use. |
| 5 Min | 5 Minutes | Sets Menu Display to automatically shut off after 5 minutes of non-use. |
| Address | Address | Accesses option for setting luminaire DMX starting address. |
| All SEQ | All Sequence | Tests all internal mechanisms in sequence for X steps. |
| Aperture | Aperture | Sets aperture opening positions and test aperture function. |
| Cal ON | Calibration On | Configures arc luminaire so that lamp will strike after calibration. |
| Channel XXX | DMX Channel | Specifies DMX channel for display of current data value. |
| Chg Lum ID | Change Luminaire ID | Normally set to luminaires serial number. |
| Cmd Lock | Remote Lamp-Level Command Lock | Denies (lock On) or allows (lock Off) remote lamp power-level changes from the console. When Lamp Level is set to 1500W , 1200W , or 900W , Cmd Lock On locks that power-level setting at the luminaire and any attempt to change the power-level setting from the console is ignored. |
| Col Wheel | Color Wheel 1 | Specifies color wheel for manual control (Manual) or testing (Test). |
| Col Wheel2 | Color Wheel 2 | Specifies color wheel for manual control (Manual) or testing (Test). |
| Config | System Configuration | Accesses options for setting lamp, pan/tilt, and Menu Display defaults. Also accesses lamp information such as number of hours used, along with its respective reset function. |
| CTO | CTO Function | Specifies CTO (color temperature orange) parameter for manual control (Manual) or testing (Test). |
| Cyan | Cyan | Specifies cyan color parameter for manual control (Manual) or testing (Test). |
| Data | DMX Data | Accesses option for setting DMX address channel. |
| Dimmer | Dimmer | Specifies dimmer mechanism for manual control (Manual) or testing (Test). |
| Disable | Disable | Disables a function. |
| Display | Display | Accesses options for Menu Display illumination time and orientation. |
| Disp Tilt | Menu orienta- tion control | Sets the orientation of the menu display to match the luminaire orientation, either standing (Up) or hanging (Down). The Auto setting is functional only for display boards manufactured prior to 01 July 2006. |
| DMX | DMX | Accesses options for DMX system settings. |
| Download | Download | Initiates download of luminaire software. |
| Enable | Enable | Enables a function. |
| Encoder | Encoder | Accesses pan/tilt encoders for diagnostic testing. |
| FAIL | Test Fail | Indicates that a test has failed. |
| Fixt Hrs | Fixture Hours | Displays total number of hours luminaire has been powered on. |
| Fixture | Fixture | Accesses luminaire information such as serial number, software version, and total operation hours. Also accesses recalibration and download options. |

Table 4-2: Menu Function Definitions (Continued)

| Display | Definition | Purpose |
|---------------|------------------|---|
| Inv Pan | Invert Pan | Reverses pan action for special focus requirements. |
| Inv Tilt | Invert Tilt | Reverses tilt action for special focus requirements. |
| Lamp | Lamp | Accesses lamp power-up options, reset and information (Config) or tests Lamp function (Test). |
| Lamp Hours | Lamp Hours | Displays total number of lamp operating hours. |
| Lamp Level | Lamp Power Level | Displays lamp power levels: 1500W , 1200W , or 900W . |
| Lamp OFF | Lamp is Off | Configures arc luminaire so that lamp will not strike upon power up. |
| Lamp ON | Lamp is On | Configures arc luminaire so that lamp will strike upon power up. |
| Lum ID | Luminaire ID | Displays unique luminaire ID number. |
| Magenta | Magenta | Specifies magenta parameter for manual control (Manual) or testing (Test). |
| Manual | Manual | Accesses options for luminaire mechanism control by entry of data values. |
| Movement | Movement | Enables or disables pan and tilt movement. |
| Normal | Zoom Mode | Zoom configuration is in normal mode. |
| OFF | Off | Turns off a function. |
| Off Time | Display off time | Shows the automatic shut-off time for the menu display. |
| OK | Okay | Indicates calibration has completed and no errors have occurred. |
| OK? | Okay? | Prompt for pressing [Enter] before an action is executed. |
| ON | On Indefinitely | Sets Menu Display to stay on until programmed otherwise (Display) or turns on a function. |
| Pan | Pan | Specifies pan function for manual control (Manual) or testing (Test). |
| Pan/Tilt | Pan/Tilt | Accesses pan and tilt options for focus swap function, movement enable/disable, manual control and testing. |
| PASS | Test Pass | Indicates that a test has passed. |
| Power | Lamp Power | Accesses options to turn lamp on or off. |
| Power Up | Power Up | Accesses options for lamp power up state. |
| PROG | Programming | Currently programming the new version of software. |
| Re Cal | Recalibrate | Recalibrates luminaire. |
| Reset Default | Reset Defaults | Resets default system configuration values. |
| Reset Hours | Reset Lamp Hours | Resets lamp hour and strike counters. (For use when new lamp is installed.) |
| RUN TEST | Run Test | Indicates that a mechanism test is in progress. |
| Sensor | Sensors | Accesses sensor types for diagnostic testing. |
| Status | Status/Error | Allows scrolling through error list or displays OK if no errors. |
| Strobe | Strobe | Specifies strobe function for manual control (Manual) or testing (Test). |
| STST | Sensor Test | Indicates that a system sensor test is in progress. |
| Studio | Zoom Mode | Zoom configuration is in quiet mode for studio use. |
| Swap | Swap | Swaps pan/tilt action for special focus requirements. |
| Test | Test | Accesses diagnostic tests for internal mechanisms. |
| Tilt | Tilt | Specifies tilt function for manual control (Manual) or testing (Test). |
| Version | Version | Displays current software version date and time (in two pages). |

Table 4-2: Menu Function Definitions (Continued)

| Display | Definition | Purpose |
|----------------|-------------------|---|
| VBrite | VARI*BRITE | Controls split lens assembly. |
| Yellow | Yellow | Specifies yellow color parameter for manual control (Manual) or testing (Test). |
| Zoom | Zoom Function | Specifies zoom function for manual control (Manual) or testing (Test). |
| Zoom | Zoom Config | Specifies zoom configuration mode (Normal) or (Studio). |

Self-Tests

Running Parameter Tests

The luminaire is capable of running self-tests by using the **Test** menu functions.

When running tests on multiple luminaires, a male termination connector is required at the last luminaire in the link. Refer to [“Connecting Data and Power” on page 15](#) for more information regarding the construction of this connector.

Note: After 10 seconds of inactivity, the menu display changes to the default state showing the address.

To connect luminaires for simultaneous testing:

- Step 1. At last luminaire, install male termination connector into DATA THRU XLR connector.
- Step 2. At master luminaire Menu Display, press [Menu].

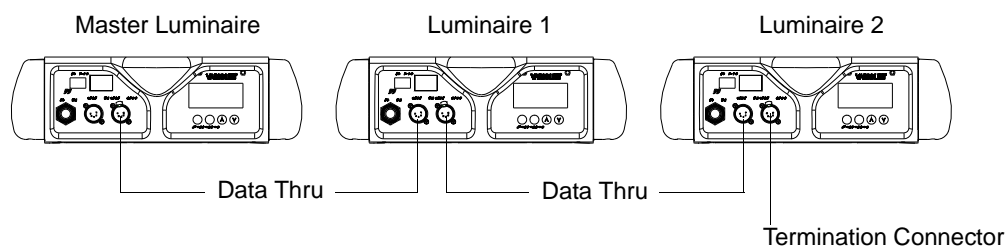


Figure 4-2: Testing Setup



WARNING: Light Beam Projects Intense Heat

Do not illuminate objects within 3.5 m (11.5 feet) of the VL3500™ Wash Luminaire. Objects within this range can scorch, melt, or ignite from the heat projected by the light beam.

To run tests:

- Step 1. Press [Menu].
- Step 2. Press [Up] / [Down] arrows until **Test** appears. Press [Enter].
- Step 3. Use [Up] / [Down] arrows to select a parameter to test. Refer to [“Menu System Function Chart” on page 47](#) for a complete list of test parameters which can be chosen.
- Step 4. Press [Enter] to run test.
- Step 5. Press [Menu] to stop test at any time.

Movement Disable

The Movement option allows pan and tilt to be disabled so that the luminaire can be placed in any position for testing without movement occurring. In order to regain full control of the luminaire, Movement will need to be enabled after testing.

Note: When using the Movement option, pan and tilt will be disabled for all the luminaires that are linked.

To set movement option:

- Step 1. Press [Menu].
- Step 2. Press [Up] / [Down] arrows until Config appears. Press [Enter].
- Step 3. Press [Up] / [Down] arrows until Pan/Tilt appears. Press [Enter].
- Step 4. Movement will be displayed. Press [Enter].
- Step 5. Use [Up] / [Down] arrows to select Enable or Disable. Press [Enter] to select.

APPENDIX A.



Troubleshooting and Maintenance

This appendix provides instructions for troubleshooting and routine maintenance which may be necessary during the life of the luminaire.

- **Troubleshooting**
- **Routine Maintenance**



WARNING: All maintenance procedures are to be performed with power removed from the luminaire. Never remove covers or backcap while lamp is in operation. Wear eye protection when opening backcap and replacing lamps.

Troubleshooting

Error Messages

If a problem occurs during luminaire calibration, at the end of the calibration sequence the Menu Display cycles through any applicable error message(s) until the end of the list is reached. To review the error messages again, re-access them using the **Status** function.

To access error messages:

- Step 1. Press [Menu].
- Step 2. Press [Up] / [Down] arrows until **Fixture** appears. Press [Enter].
- Step 3. Press [Up]/ [Down] arrows to access **Status**. Press [Enter]. (Display will now scroll through any error messages or display **OK** if no errors.)

Table A-1: Error Messages

| Display | Message |
|-------------------|-------------------------------|
| OK | No Errors Found |
| Pan/No Sens | Pan sensor not found. |
| Pan/Encoder/Fail | Pan encoder failure. |
| Tilt/No Sens | Tilt sensor not found. |
| Tilt/Encoder/Fail | Tilt encoder failure. |
| Dimmer/No Sens | Dimmer sensor not found. |
| Cyan/No Sens | Cyan sensor not found. |
| Yellow/No Sens | Yellow sensor not found. |
| Magenta/No Sens | Magenta sensor not found. |
| ColWheel/No Sens | Color wheel sensor not found. |
| ColWheel2/No Sens | Color wheel sensor not found. |
| CTO/No Sens | CTO sensor not found. |

Troubleshooting Guide

If a problem is suspected, first try recalibrating the luminaire to prompt an error message. The chart below provides possible causes and remedies for various error messages and/or symptoms.

Table A-2: Troubleshooting Chart

| Message | Description | Symptom | Possible Cause/Remedy |
|---------|-------------------------------|---|---|
| n/a | Lamp Off option is configured | Lamp does not strike upon start-up | - Reconfigure lamp startup option in Lamp config menu. |
| n/a | Lamp Douse | Lamp douses frequently | Fan failure... - check fans for proper connection and operation. |
| n/a | Lamp Strike Failure | Lamp will not strike | Lamp cutout switch engaged... - check lamp cutout switches at lamp box and fan ducts. Bad lamp... - replace lamp. |
| n/a | No power | Luminaire does not power up | Switch not turned on... - verify switch is turned on. Not plugged in... - ensure A/C cable is connected to power source. |
| n/a | DMX Data Input | Self tests will not run or software download does not work. | Detecting DMX data... - disconnect DMX input cable. |
| n/a | DMX Failure | No response to DMX data | MCB connector disconnected... - check MCB DATA IN connection. |
| n/a | DMX Termination | Erratic control of luminaire | No DMX termination or termination not correct... - check for DMX terminator. |

Routine Maintenance

Lamp Replacement

Tools: #2 Phillips screwdriver and lint-free cotton gloves



WARNING: Ensure that power is removed from luminaire when installing lamp. Always wear eye protection when opening lamp box and replacing lamps.



CAUTION: Wear cotton gloves or other covering while installing lamp. Touching lamp glass with bare fingers will leave oil and can cause the lamp to explode or reduce lamp life. If touched, use alcohol and cotton cloth to thoroughly clean glass portion of lamp.

To replace lamp:

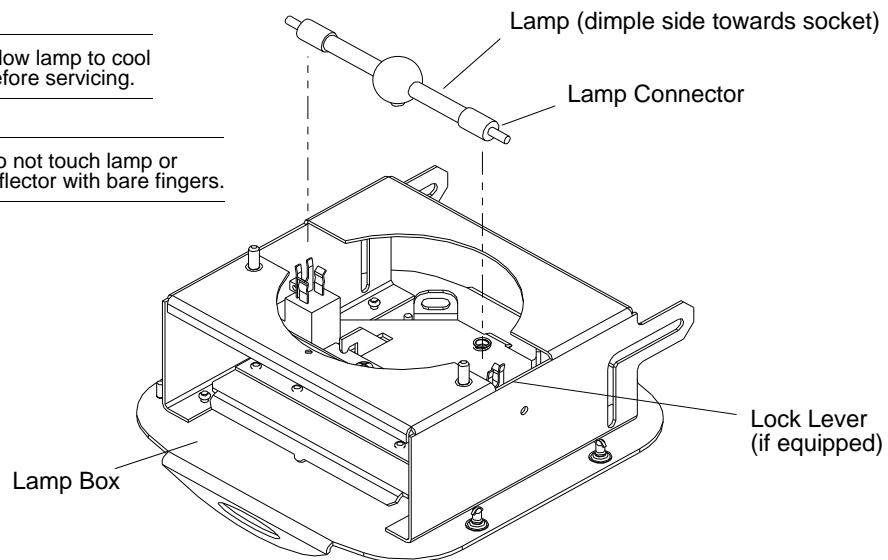
- Step 1. Remove power from luminaire and allow unit to cool.
- Step 2. At rear of luminaire head, loosen four 1/4-turn screws and slide hinged lamp box back and out.
- Step 3. If equipped, open each lamp lock lever one side at a time. Remove current lamp.
- Step 4. Position new lamp with dimple side towards lamp socket. One side at a time, press lamp lock lever forward and insert lamp connector. Ensure lamp is fully seated in place.
- Step 5. Close lamp box and re-tighten 1/4-turn screws.
- Step 6. Align lamp as detailed in [“Align Lamp” on page 59](#).



CAUTION: Allow lamp to cool before servicing.



CAUTION: Do not touch lamp or reflector with bare fingers.



* Luminaire Head Not Shown For Clarity

Figure A-1: Installing Lamp

Align Lamp

After a new lamp is installed, the lamp must be aligned to optimize the beam. Whenever a lens is changed, lamp alignment can also be beneficial. Adjustment knobs are located on the backcap.



WARNING: Backcap and adjustment knobs are HOT during lamp operation. Wear gloves to prevent burns.



WARNING: Light Beam Projects Intense Heat

Do not illuminate objects within 3.5 m (11.5 feet) of the VL3500™ Wash Luminaire. Objects within this range can scorch, melt, or ignite from the heat projected by the light beam.

To align lamp:

- Step 1. Power-up luminaire.
- Step 2. At Menu Display, select **Lamp** from **Config** menu (refer to [“Menu Operation” on page 44](#)). (If using console, set intensity to 100% and open VARI*BRITE.)
- Step 3. Position beam on a white wall at a distance of 12 to 20 feet.
- Step 4. At backcap, using X, Y, and Z adjustment screws, adjust beam as required. For true Z adjustment, turn all three knobs equally.

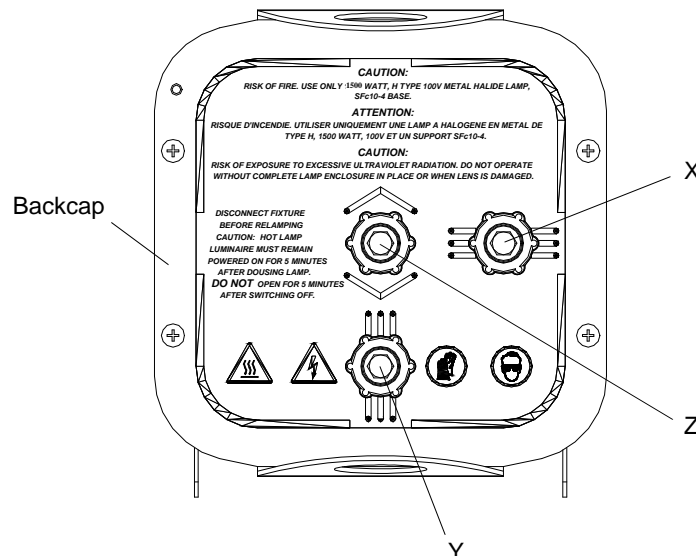


Figure A-2: Aligning Lamp

VARI**BRITE*™ Lens Replacement

Tools:

- #2 Phillips screwdriver
- Lint-Free Cotton Gloves

To replace the VARI**BRITE* lens assembly:

Step 1. Using control console, close VARI**BRITE* lens assembly. Move VARI**BRITE* lens assembly to front (zoom out) of head assembly (near luminaire front lens)



WARNING: Remove power from luminaire before performing maintenance. Internal fixture components and assemblies can be HOT after operation. Allow to adequately cool before replacing.

Step 2. Remove power from luminaire and allow unit to cool.

Step 3. As shown in [Figure A-3](#), remove appropriate head cover by loosening four 1/4-turn screws.



CAUTION: Wear cotton gloves or other covering while replacing. Clean any fingerprints or debris from lenses with isopropyl alcohol and soft cloth if required.

Step 4. At VARI**BRITE* lens assembly, remove two Retaining Knobs securing lens. Set knobs aside for reuse.

Step 5. Slide each side of lens assembly, straight up, off its respective post.

Step 6. Slide replacement lens assembly onto its post.



CAUTION: As shown in **Detail A** in [Figure A-3](#), insure that the lens assembly is aligned and fits properly into keyed carrier.

Step 7. Secure lens assembly by replacing each retaining knob. Hand tighten only.

Step 8. Replace head cover.

Step 9. Power luminaire and test.

VARI*BRITE Lens Replacement (continued)

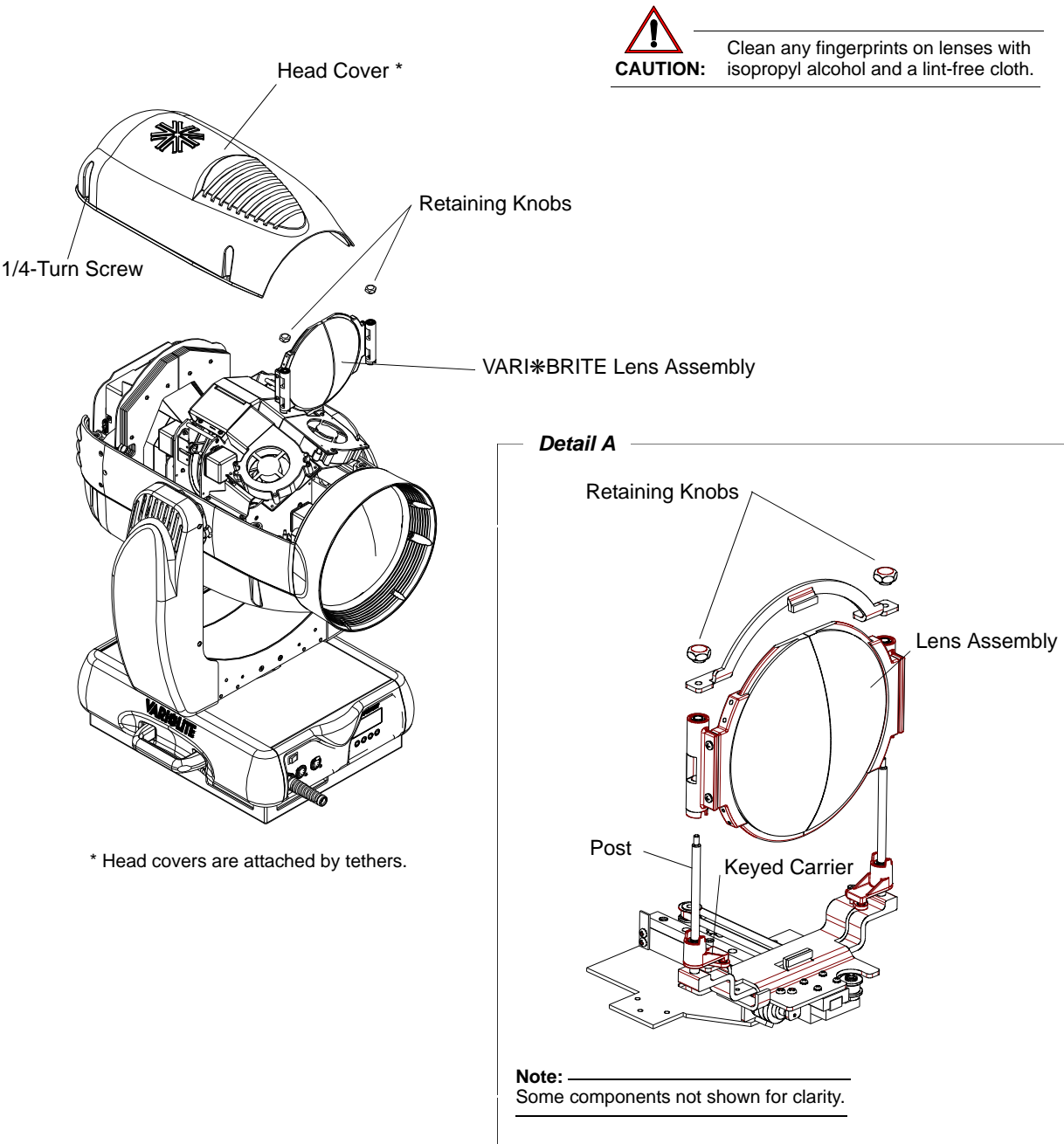


Figure A-3: VARI*BRITE Lens Replacement

Front Lens Assembly Removal

Tools:

- #2 Phillips screwdriver
- Lint-Free Cotton Gloves

To replace the front lens assembly:

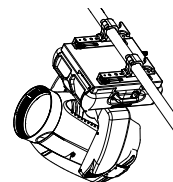


WARNING: Remove power from luminaire before performing maintenance. Internal fixture components, assemblies and the front lens can be HOT after operation. Allow items to adequately cool before replacing.

Step 1. Remove power from luminaire.



CAUTION: The luminaire head is a precisely balanced unit. The weight of the front lens assembly is counter-balanced inside the head. Removal of the front lens assembly can result in instantaneous uncontrolled head movement. To avoid uncontrolled movement when the luminaire is sitting on upper enclosure, point the head straight up. To avoid uncontrolled movement when the luminaire is hanging, point the head up at an angle until it rests against the tilt stops as shown here.



Step 2. Tilt the head to avoid uncontrolled movement. As shown in [Figure A-4](#), remove front lens assembly by loosening four captive screws.



CAUTION: When handling the front lens assembly, wear cotton gloves or other covering. If needed, clean any fingerprints or debris from lenses with isopropyl alcohol and soft cloth.

Step 3. Carefully position replacement front lens assembly so captive screws align with guide pins and mounting holes as illustrated in [Figure A-4](#).

Step 4. Tighten each captive screw to secure front lens assembly to luminaire head.

Step 5. To optimize beam, align lamp as described in [“Align Lamp” on page 59](#).

Step 6. The luminaire is now ready for operation.

Front Lens Assembly Removal (continued)

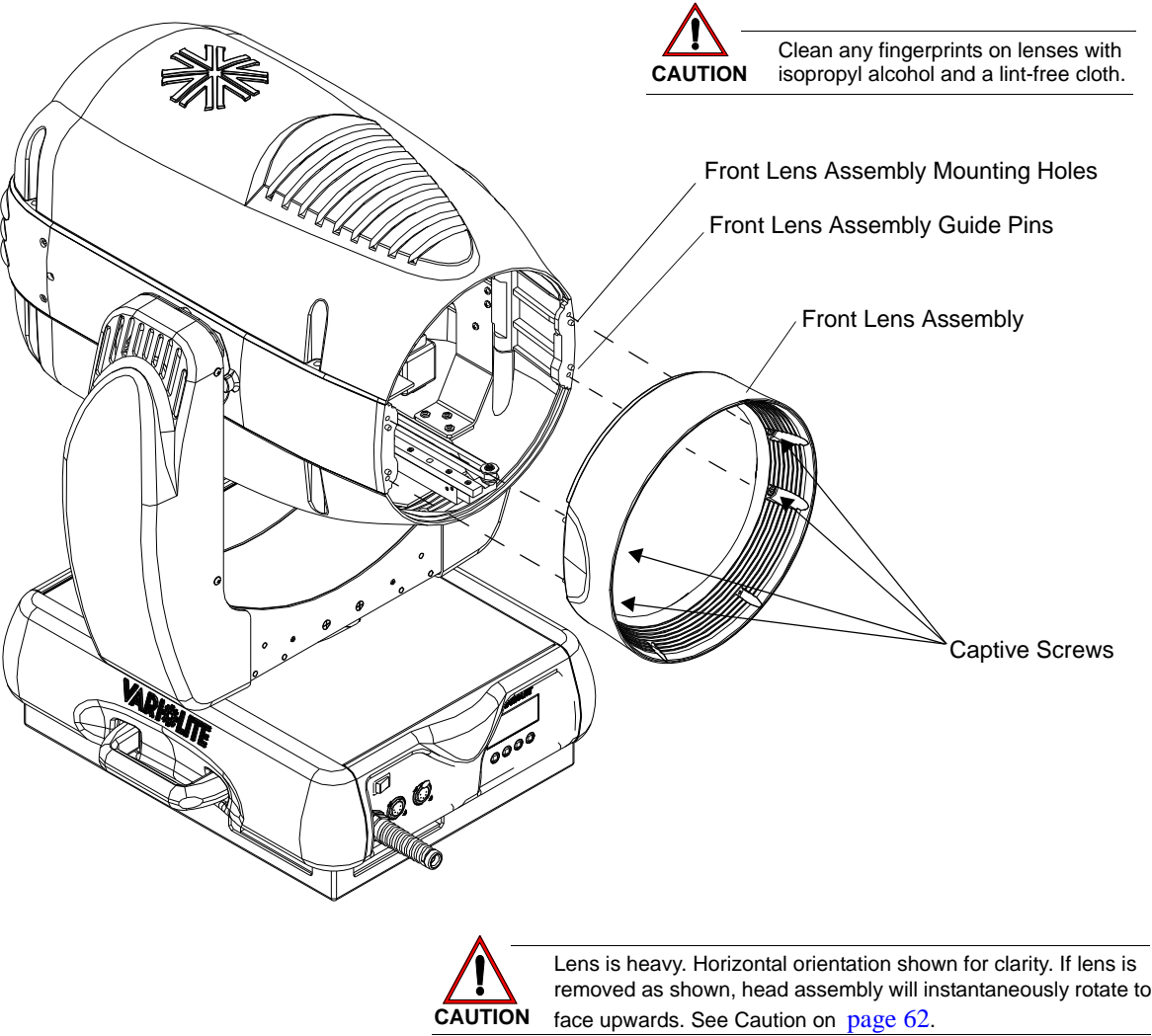


Figure A-4: Front Lens Assembly Removal

Color Filter Replacement

Tools:

- lint-free cotton gloves
- #2 Philips screwdriver



WARNING: Remove power from luminaire before performing maintenance. Filters can be HOT after operation. Allow the fixture to cool before replacing filters.

To replace a color filter on Color Wheel 1 (closest to the lamp):

- Step 1. Remove power from luminaire.
- Step 2. Remove bottom (relative to backcap label) head cover by loosening the four 1/4-turn screws.
- Step 3. As shown in [Figure A-5](#), open door on the cooling-air duct.



CAUTION: Do not touch filters with bare fingers. Wear cotton gloves or other covering while replacing filters. To clean filters, use mild glass cleaner and soft cloth. Strong cleaning solutions can damage coating. Fingerprints or other grease deposits on filters can cause the glass to break.

- Step 4. Rotate Color Wheel 1 until the filter you are changing is accessible.
- Step 5. To improve access to the filter, rotate the mixed color wheels to position the cut-outs next to the filter you are changing.
- Step 6. Gently press the color filter toward the lamp until it is free of the lock pins. Remove filter.
- Step 7. Slide the new filter under the spring clip until it is securely retained by the lock pins.
- Step 8. Close the air-duct door. Replace the head cover.

To replace a color filter on Color Wheel 2 (closest to the lens):

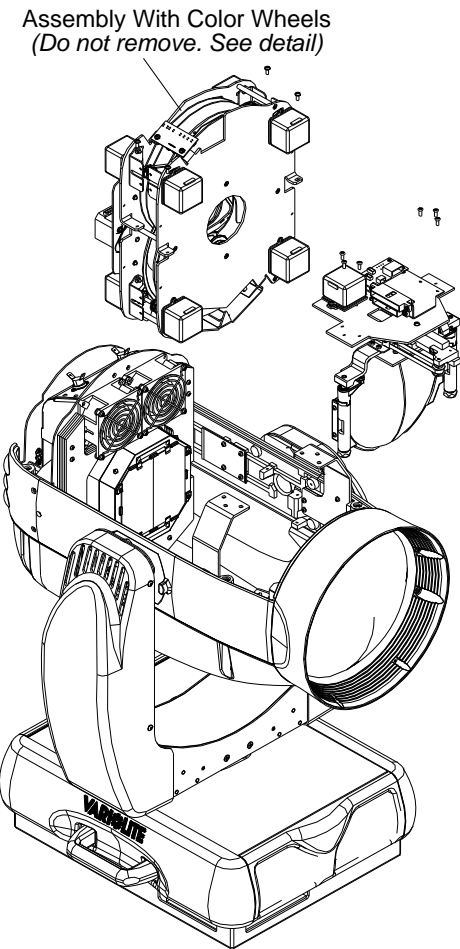
- Step 1. Remove power from luminaire.
- Step 2. Remove top (relative to backcap label) head cover by loosening the four 1/4-turn screws.




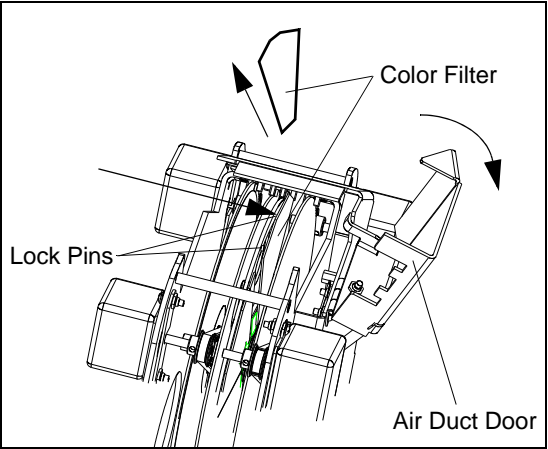
CAUTION: Do not touch filters with bare fingers. Wear cotton gloves or other covering while replacing filters. To clean filters, use mild glass cleaner and soft cloth. Strong cleaning solutions can damage coating.

- Step 3. Rotate Color Wheel 2 until the filter you are changing is accessible.
- Step 4. To improve access to the filter, rotate the mixed color wheels to position the cut-outs next to the filter you are changing.
- Step 5. As shown in [Figure A-5](#), gently press the color filter toward the lens until it is free of the lock pins. Remove the filter.
- Step 6. Slide the new filter under the spring clip until it is securely retained by the lock pins.
- Step 7. Replace the head cover.

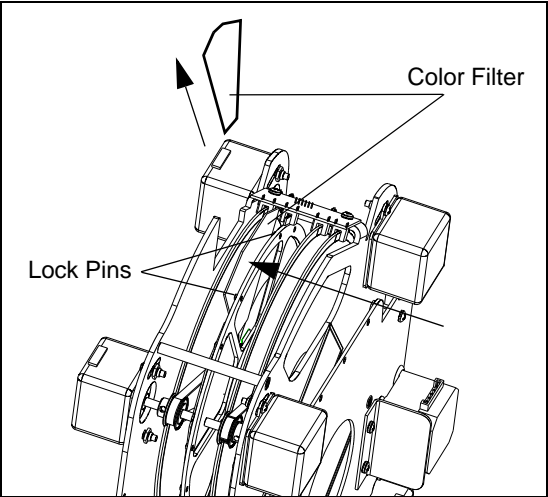
Color Filter Replacement (continued)




CAUTION: Do not touch filters with bare fingers. Wear cotton gloves.



Color Wheel 1



Color Wheel 2

Figure A-5: Replacing a Color Filter

Cleaning Front Lens

The front lens can be cleaned using isopropyl alcohol and a soft, lint-free cloth. In the event that the front lens assembly needs to be removed for cleaning, refer to [“Front Lens Assembly Removal” on page 62](#) for removal procedure.

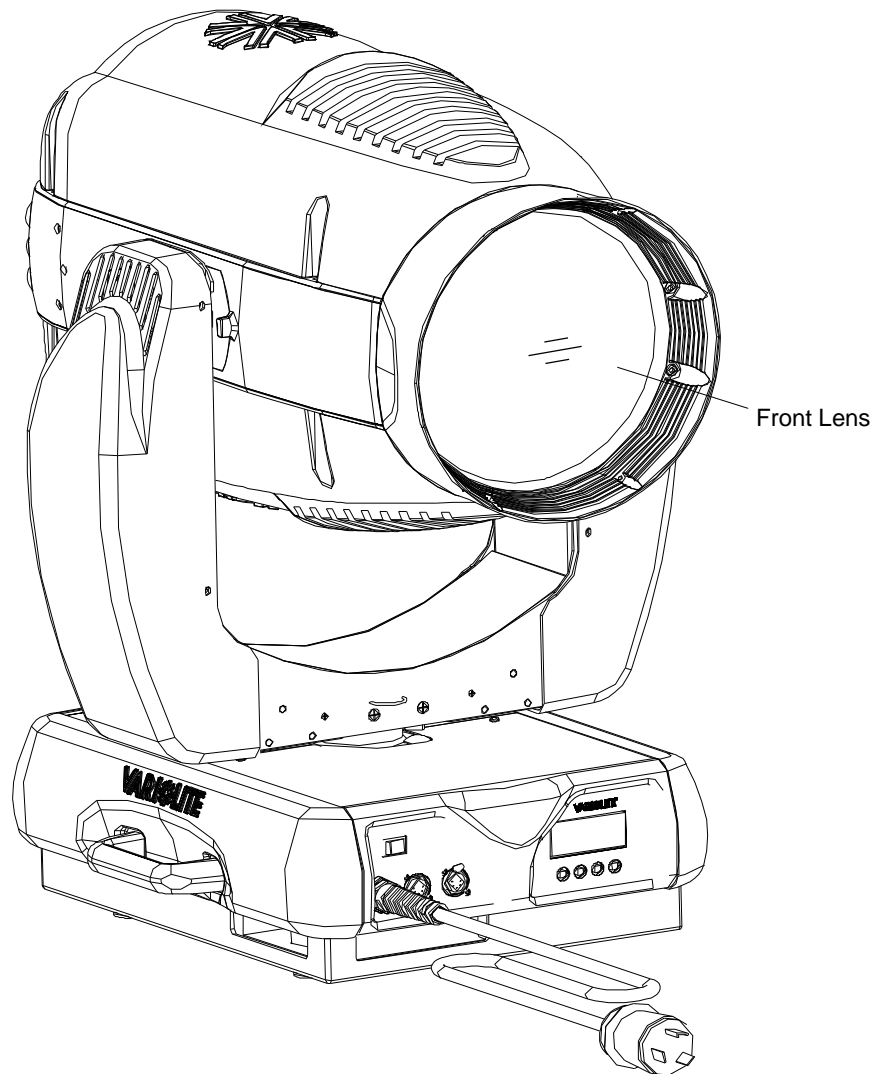


Figure A-6: Cleaning Front Lens

APPENDIX B.



Technical Specifications

VL3500™ Wash Luminaire

PROGRAMMABLE FUNCTIONS

Color System

A three-filter CYM cross-fading mechanism. Two fixed color wheels each with six interchangeable color filter positions, one of which is open, and continuous wheel rotation for additional effects. The color system includes a variable CTO color temperature correction filter.

Beam Size Control

A zoomable beam spreader mechanism provides continuous beam size control for both rapid changes and smooth timed beam angle changes. An aperture wheel includes various opening diameters and it can be rotated continuously to create effects.

Intensity Control

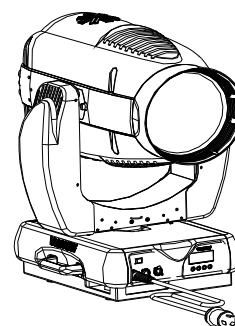
Full field dimming designed for both smooth timed fades and quick dimming effects.

Strobe

High-performance dual blade strobe system capable of ultra-fast operation.

Pan and Tilt

Smooth, time-continuous motion using stepper motors with encoder correction. Pan range is 540°, Tilt range is 250°. 0.3° resolution.



OPTICAL

Source

Philips MSR Gold 1500 SA DE metal halide lamp, 6000°K, 85CRI

Output

50,000 lumens typical

Reflector

Precision glass reflector with dichroic cold mirror coating.

OPERATIONAL

Power Requirements

Standard AC power distribution from 200-264 VAC, 50/60 Hz. The fixture requires 7 to 12 A depending on the AC supply voltage.

Operational Temperature

-20° to 104°F (-29° to 40°C)

Cooling

Forced air cooled.

Control

Compatible with a wide variety of DMX512 consoles.

Weight

96 lbs. (43.5 kg) with rails.

Spacing

Hangs on 28.0 inch (71 cm) centers. All models can be mounted and operated in any orientation.





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